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ART. I—RUSSIA'S LEGENDARY LORE.

FOLK-LORE is the history of people told by themselves ; and had we the complete cycle of any people's legends, it would give us a far fuller, truer, and more faithful record of that people's life than any toilsome chronicler, or ponderer over dusty tomes could hope to write. In that legendary record, fresh from the people's life and the people's heart, their sorrow would be sorrowful, their joy would burst into song, and the mysteries of their life would remain mysterious.

Had we such a legendary cycle, then not Greece and India alone, but every people, would have an Iliad and a Veda ; a record of valour and heroism, of wisdom and wit. In its youth, every nation must have had its legendary history, its grand national Epic, sung and acted by the heroes and bards of generations, and providing the social and moral religion, the poetry, drama and romance, and the soul's daily bread for the people that possessed it.

In the "dark" ages, our troubadours and bards, our Arthurian and Ossianic cycles, Nibelungen Lied and Eddas were yet with us ; and where the dark ages still linger, among the barbarous, backward, and unenlightened races, we may yet find people whose traditional Epos is well-nigh complete, still feeding and interpreting the moral life of the people, and linking to-day with the mythical past.

Among the nomads of Asia, the mountaineers of the Caucasus, the bards of remote Russian villages, there still remain legends so rich and so copious, that the history of Empires might be learned from them, were all written histories destroyed. In Russia the legendary Epos still lives ; it is being added to

to-day ; it has recorded the spirit and life of the middle ages, and it stretches back to a pre-historic past, when the happy gods still walked with men. Bright and joyful were the gods of old Russia, full of friendly kindness for the worshippers, like the deities of the old Vedic hymns.

When Christianity was brought to Russia, it soon took root in the realms of the old Slavonic gods, not as a supplanter, but as an ally. The masses accepted the teaching of the Church, and the ethics of Christ took a place in the heart of the people side by side with the old zoomorphic gods and the loving communion with nature.

No rites for the dead or mention of death are allowed by the Orthodox Church on Easter Day, but the old traditions linger in the heart of the people, and, though they relinquished their wish to consecrate the same day to the resurrection, and to Kupàlo, the old god of Spring, still the week after Easter is universally given up to the dead, in the spirit and rites of the old religion. Tears and lamentations have no part in these ceremonies. They eat, drink, and rejoice, and lay offerings from the banquets on the graves of their dead. Eggs dyed red are buried by the children in the tombs,—not in the graveyards only, but in the cromlechs and tumuli of old heathendom. The people make invocations to the dead, and sing these hymns in honour of Lel :—

“ Winter is dead, and the Thunderer wakes from his long sleep ; he calls his purple cloud-horses to him, and over Damp Earth, the Mother, shakes out his golden lightning reins :

Earth, the Mother, awakes ; her fair face grows young again ; ready to bring forth flowers at Lel, the Spring God's kiss ; with Lel's first kiss, the meadows will flower, and the pathless woods ; the Thunderer's lightning-arrow, all awakening, will pierce even to the dead in their graves :

The dead arise full of gladness, they look on the fair white sky ; they see the red sun, the silver moon, and the hosts of tiny stars :

Gladness is in the heart of the living too, as they range the dainties on the graves ; for this is the day of ancestors, the day of the living dead :

The Thunderer clangs his hammer on the sky, he shakes out his reins of gold ; for Lel, the joyful, is coming, Lel that makes drunk with the wine of life :

Lel walks unseen, in the nights of the wine of spring ; in his silver-silken robe, a wreath of red poppies on his head, in his hand, ripe ears of corn :

Unsown corn springs in his footprints ; where his eyes rest, break forth flowers ; in the forest, as he passes, the birds sing, the fishes leap with joy :

Lel leaves the forest, he passes through hamlets and towns ; on whom Lel looks as he passes, his heart grows full of joy.

Lel hurries not on his way ; he walks with a gay smile ; he enters the halls of the rich and the huts of the poor, where beautiful maidens sleep :

He touches a sleeping youth with his golden corn-ear, and the blood of the youth is set on fire ; with a scarlet poppy he touches a sleeping maid, and restless love is born in her heart :

Lel stands watching her sleep, and, as he watches, smiles :

Kupálo loves the nights of the wine of Spring ; he loves the growing corn, and the young leaves in the glades :

What is spoken in the silence of the night ? What is whispered in the secret gloom ? Knows only the Thunderer, seated on his purple cloud, and Lel who is smiling to himself."

There is a proverb, that, when Lel walks on the earth, the nightingales sing ; when Lel dies, the nightingales are silent. The yearly death of Lel takes place in Midsummer on St. John's Day. Great wonders happen on the night of his death. The fern bears a blossom of flame, and animals speak with human voices. Wizards and witches in the forest cull magic herbs, and hidden treasures are seen deep in the earth.

A strange mingling of Christianity with heathendom is the children's rite of christening the cuckoo. All the maidens gather in the forest beside a running brook. With ribbons they tie together the tops of two young trees, growing close together. A shawl is spread over the trees, and on a scarf spread out beneath them, the figure of a cuckoo is made with flowers. Songs are chanted, and water from the brook is sprinkled over it, and the ceremony is complete.

In the evening, boys and girls assemble, and, making a straw image of Kupálo, adorn it with ribbons and flowers. They throw it into a fire in the forest, the boys leap over the fire, and the old men see omens in the leaping flames. The Spring God is Lel in the north ; Yarilo on the Volga ; and Kupálo in Poland and Little Russia.

Besides these echoes of old heathendom, the bards of the Russian villages, a race of splendid and savage old men, have a whole cycle of mediæval legends, tales of Vladimir's court, and the heroes of early Christianity. They half-sing, half-recite them in the villages, to reflective, monotonous music, with a low, sweet undersong.

Of these I have chosen the legend of Vasili, Buslai's son, a tale of the "Life of old Novgorod," while it was yet a Free Town in the Hanseatic League, before the Princes of Moscow subdued it ; a legend full of the living breath of mediæval times, and the memory of the feuds between the rich merchants of the league and the adventurous bands of the city, of whom Vasili and his brave men are a type. The Bell of Novgorod—whose loud voice summoned, in time of peril, the sovereign people to the assembly—stands as a type and figure of the privileges of the old Free Town :—

"In famous, great Novgorod, lived Buslai ;
Living in Novgorod, he went not against it,

Nor spoke harshly to the Novgorod men ;
 Living in Novgorod, he grew old,
 Grew old in Novgorod, and died.
 At his death was left his nobleman's wealth,
 Was left his noble widow, Amelfa Timofeevna,
 Was left, too, his dear son, his son Vasili.

When Vasili was seven, his dear mother,
 The noble widow Amelfa Timofeevna,
 Schooled him in reading, he learnt it well ;
 Schooled him in writing, he learnt it well ;
 Schooled him in church singing, he learnt it well,
 And no singer in famous, great Novgorod,
 Could sing like Vasili, Buslai's son.
 But Vasili Buslaievitch sorted with drunkards,
 With merry, brave fellows, he learnt to drink,
 And join in their riotous sports in the town ;
 Whom he seized by the arm, his arm was sprained,
 Whom he seized by the foot, his leg was broken,
 Whose back he touched, cried out in pain,
 And crept away with broken back.
 And great complaint made the men of Novgorod,
 Rich men, merchants, made this complaint,
 To the widow Amelfa of her son Vasili.

His mother blamed him, scolded him, admonished him ;
 Vasili endured not ; he went to his tower,
 And, seated on a leather stool, in brief writing,
 Wrote letters with words of wit :
 ' Who wishes to eat and drink free,
 Let him come to Vasili's wide courtyard,
 He will eat and drink free, and wear rich dress.'
 He sent these letters by his servant
 To the broad streets and lanes of the city ;
 Then Vasili put a tun in the wide courtyard,
 And filled it up with rich green wine ;—"

And Vasili's brave band gathered together ; and soon came
 into conflict with the men of Novgorod :—

" Young Vasili entered the fight ;
 Whoever opposed him, was struck on the head ;
 Then Vasili cried aloud to his companions :
 ' Ho ! Kostya, and Luka, and Moisei, sons of boyars,
 ' They are beating me, your Vasili Buslaievitch !'
 The brave band rushed forward, and beat back the crowd,
 Many they killed, and more they wounded ;
 The merchants cried out, and Vasili spoke to them :
 ' Ho ! men of Novgorod ! I make this wager,
 ' To fight against Novgorod, with my brave companions,
 ' If Novgorod beats us, we will pay you tribute ;
 ' If we beat Novgorod, you shall pay us the tribute !'
 The wager was made, and a battle began ;
 The men of Novgorod, the rich merchants,
 Came together against young Vasili ;
 They fought till evening, Vasili and his band,
 And slew many in Novgorod,—slew them dead.
 Then the men of Novgorod bethought them,
 And took rich presents to Amelfa Timofeevna :
 ' Noble widow Amelfa Timofeevna !

'Receive our gifts, and restrain your son,
'Your dear son, Vasili Buslaievitch !'
The noble widow received their gifts,
And sent the Dark Maiden to Vasili Buslaievitch.
The Dark Maiden seized Vasili's white hands,
And brought him to the wide courtyard ;
The noble widow upbraided her son,
And locked him in a dungeon, with bolts of steel,
And his brave companions fought the battle,
All the day long, till the dusk of evening."

But the brave companions were beaten back, till the Dark Maiden went and set free Vasili, who came armed with a cart-axle to the help of his companions :—

"Vasili ran, armed with the axle,
Across Novgorod, through its broad streets,
Till he came where stood the aged Pilgrim,
Holding a bell on his strong shoulders.
The bell weighed six hundred score pounds ;
The aged Pilgrim cried to Vasili—
'Stop, Vasili, enter not the turmoil !
'Stay, young bird, flutter not your wings !
'You cannot drink the River Volhov dry !
'You cannot slay all the Novgorod men !
'Brave men are ready to go against you,
'Brave men we, though we boast not our valour.'
Then Vasili answered this word,—
'Ho ! aged Pilgrim ! I have made a wager,
'A great wager with the men of Novgorod ;
'The monastery and you have no part in it,
'Enrage me not, or I will slay you !'
He struck at the old man, struck upon the bell
With the cart-axle, the axle of iron ;
The old man reeled, but moved not backwards,
Vasili looked at the Pilgrim under the bell,
And there was no life any more in his eyes.
Went Vasili to the river, to the stream of Volhov,
And his brave companions saw him, Vasili Buslaievitch ;
New wings grew to the keen falcons,
And new strength to the brave companions,
When young Vasili came to help them.
Vasili fought the men of Novgorod,
He fought them all day long, till, at dusk of evening,
They submitted to him and were subdued.
They kept their pact with the noble widow,
The noble Amelfa Timofeevna,
And, filling cups of white silver and red gold,
They went to her Hall, and bowed to the earth :
'Lady and Mother ! receive our gifts !
'Restrain Vasili and his brave companions !
'We shall pay each year three thousands in gold,
'And bring a loaf and a cake from the oven,
'The marriage fee from new-married women,
'A part of the dowries of our young maids,
'And a part of the earnings of all workmen,
'Only the clergy shall not be taxed.' "

The noble widow Amelfa Timofeevna restrained her son and

his brave companions, and received grateful tribute from the men of Novgorod :—

“ And the brave companions sat at the board,
And drank each a cup of green wine,
Rejoicing in their victory over Novgorod,
And cried—! ‘ At our boon companion’s feast,
‘ At the feast of young Vasili Buslaievitch,
‘ The fare is rich and the wine abundant,
‘ And his coloured robes are numberless,
‘ And his golden ornaments numberless,
‘ And all our wounds are healed for ever !’
And Vasili feasted them well,
And the noble widow, Amelfa Timofeevna.
And Novgorod brought gifts to Vasili
In one day, a hundred thousand,
They made peace with young Vasili,
Vasili Buslaievitch ; the men of Novgorod
Lived at peace, and were subdued.”

There are other legends of Vasili Buslaievitch that tell how he grew up to manhood, and went on a pilgrimage to Jerusalem, and how he died by the Caspian Sea. The same spirit inspires them all. The colour, freshness and naturalness, the native exaggeration and sincerity, the personification, the repetition, the anachronism, and occasional impossibility, the use of constant epithets and recurring titles in these Russian legends, are true epic, and the language of these old bardic songs is, perhaps, the only one that could fitly translate the music of Homer. No one knows who first recited these legends, when they date from, or where they began ; they grew up naturally in the heart of the people, and the process of their growth is still going on.

Older, perhaps, than even these old legends are the saws, fables, proverbs, and songs, that, with them, make up the literature of the people, and are their practical guide in daily life. Of the fables and proverbs, some are particular to the Russian people,—some are universal ; but even to these the popular fancy has given a colour of its own.

The fables are gay and grave, wise, witty and pathetic,—a whole epic of beast and bird life, of witchcraft and fairy-land, full of the snow, forests and flowers of the Russian land.

Out of such abundance it is impossible to choose any one fable that shall duly represent the whole ; but the Tale of the “ Wolf and the Fox,” which I have translated, is sufficiently characteristic in its own way :—

“ Once upon a time,” says the fable, “ there lived an old man with his old wife. The old man said to his old wife, ‘ You bake pies ; while I go out to fish.’ He harnessed his horse to the sleigh, and went to the river. It was winter time ; the river was frozen, and snow lay deep in the fields. The old man caught

lots of fish, and laid them on the sleigh, and covered them with cloth of bark. As he was going home, who should run by but a hungry fox ; of course the nice smell of fresh fish tempted him ; ' Let me think of some way to get the fish,' he thought to himself. So he ran as fast as he could through the wood, and the old man was soon left behind. Then the fox lay down by the roadside, and held his breath, so that the old man might think he was dead. The old man soon reached the spot in his sleigh, and thought to himself, when he saw the fox, ' That's good luck ! here's a dead fox ; his fur will make a nice collar for my old wife.' So he got down, and caught the fox by the tail, and threw it into the sleigh on the top of the fish, that was frozen by that time. In a short time, the dead fox came to life again ; he made a hole in the cloth of bark, and, fish by fish, threw the whole load out of the sleigh, and then jumped out himself.

" He then ran back along the road, gathering up the fish, laughing to himself. He could not carry all the fish, so he dug a hole and buried it, to have a nice store for the winter. Then he sat down under a bush, and had a fine feast.

" A wolf who was even hungrier than the fox, was wandering by ; now this wolf was the fox's gossip, and he soon noticed the smell of fresh fish, and, guided by it, discovered the bush and the fox and the remains of the feast.

" ' That's right, dear gossip,' said he, licking his lips ; ' you have plenty of fish, I see. Give me some of the bones !'

" ' Give you the bones !' cried the fox, full of fear that the wolf would find and plunder his store ; ' what a strange idea of justice you have, dear gossip ! And to catch fish for you to eat !' ' But I am so hungry !' argued the wolf. ' Well, if you are hungry, come and catch some fish for yourself. As you are my old friend, I don't mind showing you how to succeed.'

" So they trotted off together to the river. In the middle of the river, there was a hole in the thick ice, for the women of the village to draw water.

" ' There, dear gossip,' cried the fox ; slip your tail through the hole, and let it hang in the water. And don't forget to repeat : Bite fish, big and little ! or you won't catch any fish.'

" But the wolf was hungry and greedy, and thought to himself ;—

" No doubt, gossip is very clever, but I am sure he is wrong about the little fish ! and so the wolf began to repeat, ' bite fish, big and big !'

" And all the time the fox ran round in circles, and repeated : ' Wolf's tail freeze fast ! wolf's tail freeze fast !'

" ' What are you repeating ?' asked the wolf.

" ' Oh, I am just repeating, bite fish, big and little !' said the fox.

"At last the wolf grew tired and cold, and said :

" 'I think it is time to pull out my tail. It begins to feel heavy !' "

" 'Don't be impatient ! wait a little longer !' answered the fox, seeing that the wolf's tail was not quite frozen in.

"After a little while the wolf asked again : ' Shall I pull now ?' "

" 'Do !' answered the fox, 'seeing that the women of the village were coming for water with yokes and pails.

"The wolf pulled and pulled again, as hard as he could, but his tail was frozen fast to the ice. So he must either lose his tail, or wait till the ice melts ; but the wolf was proud of his handsome tail and loth to lose it, so he hoped fortune would come to the rescue.

"In the meantime the women reached the river-bank, and screamed with fright when they saw the huge wolf.

"Then the men rushed from the village and killed the wolf.

"Now ! thought the fox, running away, my nice little store will be safe. Gossip won't discover it.

"On reaching his home, the old man found out the trick the fox had played him : ' Hullo ! old wife,' said he, ' I was bringing you home a load of fish, and a fine fur collar, and now find everything is gone.' "

" 'Never mind, husband, come and have some pies !' answered the old wife."

The charm of these Russian fables is that they almost never have an obvious moral ; simply a fanciful story of wolves, and foxes and bears, or sometimes fairies and fiends, in a charming frame of peasant life.

In Little Russia, the tone of these popular tales is entirely different. The wildness, romance, extravagant daring, and no less extravagant cunning of the Kazak character take the place of the reflective, melancholy and subdued colouring of Great Russia.

The contrast between the two people of the Russian race comes out as distinctly in their fables as in their music. In Great Russia, metaphysical, reflective, and always melancholy ; in Little Russia, among the Kazaks, passionate, mirthful, and mad. Were the " Wolf and the Fox " a Kazak fable, instead of the resignation to loss of the old peasant and his wife, we should see them laying their heads together to outwit the fox and get back the load of fish and the collar of fur. This difference in character had originally no cause in race difference. The earliest Kazaks were simply a remnant cut off from their race by a Tartar inroad ; their unsettled, adventurous bands being added to by malcontents and outlaws from the Tsardom of Moscow.

The isolated Kazak bands had no government, no laws, and

no cities. Their families lived in isolated villages, while the Kazaks themselves led the life of free adventurers, on the islands and reefs of the Dnieper, where the women and strangers never entered. Their free bands fought the Poles, the Turks and the Krim Tartars, attacking them with bold daring and carrying their lives in their hands. It was these Kazak bands that conquered Siberia, and first opened up the road to the Caucasus. It was they also who raised the standard of rebellion, under Pugotchof, against Katherine the Great, and were a most formidable menace to the stability of the Moscow Tsars.

Katherine the Great's statesmanship at last removed their menace by planting the Island-men of the Dnieper on the Caucasian ridge, and setting them to fight the Cherkess of the mountains. Then the sense of common danger drew the two branches of the Russian race together and cemented a firm unity between them.

To illustrate the genius and life of these Island-men, I have taken a Kazak tale from Gogol, their great historian, as Scott was the historian of the Borderers. The tale is, I doubt not, as old as the hills, or, should we say, as old as the steppes; but no one could tell it like Gogol.

Gogol tells the tale in the person of the grandson of the hero, who was sent with a letter from the Kazak Hetman to the Tsaritsa of Moscow.

He lost his cap and the letter under circumstances sufficiently demoniac, and went to seek it again by the advice of mine host, an expert in demonology, in the gloom of the forest 'on such a night as is only good for witches to ride their broomsticks on,' and came to a river that looked as if the water were black liquid steel.

"On the other side of the river there was a little fire, now dying away, and now shivering on the river, like a rich Pole in the claws of a Kazak. There was a rickety little bridge across the river.

"'Only the devil's car could get safe across that bridge' thought grandfather; but he stepped on it as quickly as another man would take snuff. Only then he noticed, sitting round the fire, such a hideous gang that he would have given anything to escape them at another time. But now he needed their help, so he bowed low to them and said:

"'God save you, good people!'

"But not one stirred. They sat silent, only now and then throwing something into the fire. One place was free; so grandfather sat down without waiting for an invitation. Things went on like this for a long time. Grandfather got impatient. He took out his pipe, and glanced at the party.

Nobody heeded him. Grandfather was a man of the world, and could have talked to a king without embarrassment.

" 'Noblemen, be so kind—I should like—the fact is—I would not for worlds be impolite—I have got my pipe—but nothing to light it with ;' he began. Even this speech got no answer, only one of the hideous gang stuck a burning brand so close to grandfather's face, that he had to jump back, or his eyes would have been blinded.

" Seeing that time was passing, he decided to tell his story, whether they listened or not. All the horrid gang stretched out their palms. Grandfather knew what they wanted and threw them a handful of money as if they were hungry dogs.

" When they touched the money, everything round him grew dim, the earth trembled, and, he couldn't tell how, he found himself in a very hot place.

" 'Little Fathers !' he exclaimed, when he saw where he had got to. What monsters, each worse than the other ! As many witches as snowflakes on Christmas night, all dressed up, with red and white on their faces, like fine ladies at a fair, and all dancing a devil's jig. You couldn't see for the dust they kicked up. Every christened man would have shivered to see the jumps of Satan's tribe, but, spite of his fright, grandfather couldn't help laughing, when he saw how the devils with dogs' heads, and thin legs like Germans, made love to the witches ; and the musicians tapped their cheeks for tambourines and whistled hornpipes through their noses. They all rushed at grandfather when they saw him. Heads of pigs, dogs, horses—all turned to him for a kiss. Grandfather spat at them, so disgusted he felt at their tricks. Then they set him at a table as long as the road from Konotap to Baturin.

" 'Not so bad, after all !' thought grandfather, when he saw the pork sausages, onions, and salt cabbage, and many dainties more.

" 'The devil's gang don't fast, it seems !' And grandfather never lost a chance to sharpen his teeth ; so, without further talking, he helped himself to a dish of lard and a ham, and took a fork as big as a haymaker's. Then he put a fine piece of ham on a slice of bread, and sent the whole into his neighbour's mouth !

" He could hear the fellow munching it at his very ear !

" Grandfather lost no time. He cut another slice, and raised it to his lips, and it went safe into his neighbour's throat ! Grandfather got mad. He forgot his fears, and where he was, and jumped at the witches.

" 'You dare to mock me, you Herod's brood ! Bring my cap at once, or I'm a Catholic if I don't twist your ugly heads off !' he shouted, and all snarled and gibbered till grandfather's soul trembled.

"'All right!' cried one of the witches that grandfather took to be the chief, because she was ugliest—'you'll get your cap back, but not till you play Fools with us three times.'

"What was grandfather to do?—a Kazak playing at Fools with old hags! Of course, at first he refused, but, had to submit at last. Cards were brought, so dirty that they were only fit for a village priest's daughters to tell their fortunes with.

"'Look here!' cried the witch again: 'if you win even once, you'll get your cap; but if you lose three times, you'll see very little of your cap, or even the world, any more!'

"'Shut up and deal! Happen what may!'

"The cards were dealt. Grandfather took his, and wretched cards they were; not a trump: nothing higher than a ten! not even a single pair! And the witch had sets of five every time!

"So grandfather lost the first game, and as soon as the last card was played, the hideous gang neighed, grunted and barked all round: 'Fool! Fool!! Fool!!!'

"'May you burst! Devil's children!' cried grandfather, holding his ears.

"'Well, thought he, the witch is clearly cheating. This time I shall deal myself!' This time his cards were better, and he had some trumps. At first, all went well. To end the game, the witch put down a five and two kings. Grandfather had nothing but trumps; so he promptly covered the witch's cards.

"'Look out, my good man! that's not Kazak play! What are you covering with?' —

"'Why, trumps, of course!'

"'Perhaps you think those are trumps? We know better!'

He looked, and—his cards weren't trumps at all!

"What did it all mean? Grandfather had to be Fool a second time, and all the devils again screamed at him:—'Fool! Fool!' till the table trembled and the cards jumped.

"Grandfather felt mad. He dealt for the last time.

"Again the witch had a set of five, but grandfather covered them all right, and got five trumps from the pack instead.

"'Here goes!' he cried, 'a trump!'

"The witch quietly covered it with an eight.

"'That's cheating!' cried grandfather, but the witch lifted her card, and under it lay a six of grandfather's—not a trump, at all!

"'This is simply sorcery!' thought grandfather, banging his fist on the table. So he went a plain six, and to his astonishment the witch was not able to cover it.

"'Now I must look sharp, thought grandfather; something is

wrong !' So without saying a word, he hid his cards under the table, and made the 'sign of the cross' over them, and the bad cards he thought he had in his hands suddenly became the knave, king, and ace of trumps, and the six he had played was a queen.

" 'No wonder I was Fool !' said he ; 'there, take that king of trumps, and perhaps you would like the ace too? There, cat's daughter, who is Fool now?'

"All the Hot Place thundered. The witch fell in a fit, and grandfather's cap fell on to his head from no one knows where.

" 'That's not enough, though !' said grandfather ; 'may I be struck by lightning if I don't cross the lot of you, unless my horse comes back at once.'

"He was raising his hand, when a rattle of bones was heard, and the skeleton of his horse stood before him.

" 'There is your horse !' cried the devils.

"Poor grandfather cried like a child to see his poor old friend's bones.

" 'Well, give me any horse,' he cried, 'to get out of your beastly den.'

"Then grandfather suddenly felt under him a horse of fire that rose in the air like a bird. Grandfather passed by such places as would make you shudder to hear of ; and once, looking down, he was horrified to see a bottomless precipice, terribly steep.

"The devil-steed rushed straight at it, heedless, and grandfather held on like grim death. Crash ! down he fell to the bottom of the precipice, more dead than alive, and he never remembered what happened after he fell.

"When at last he came to his senses, he saw it was daylight, and everything round him was familiar. He suddenly perceived that he was lying on the roof of his own house !"

But no one could fitly translate these mad tales of Gogol's, but the author of *Tam o' Shanter*. Both have the same half-concealed affection for Satanic agencies, and the same conviction that, give him fair play, and a Scotchman or a Kazak will cheat the devil. A curious creation is the devil of Little Russia, at once a personification of Kazak cunning, and a whetstone for Kazak wit. So constant is his appearance in Kazak tales, the same malicious, cunning, but cheatable fiend, that I should incline to pronounce any Little Russian tale spurious from which the hoofs and horns of his Dusky Majesty were absent.

Wit, humour, romance, fancy, audacity,—the Kazak tales are full of them all ; but one quality they never have—dignity, loftiness, majesty. Whether it be that the dwellers on the monotonous steppes are shut out from higher imaginative inspirations

or that the genius that has made of the Kazak a keen strategist and astute diplomat, has forbidden him to sound the nobler strains of poetry and tragedy, I know not; but in all the qualities of distinction, nobleness, and simplicity, the Kazak tales and ballads are far inferior not only to the legends of Great Russia, but even to the tribes of the Caucasus against whom they were pitted by Katherine the Great.

How different is the Dark Power of that tale of Gogol's from the majestic spirit of Evil in the legends of the Cherkess (Circassians) of the Caucasus glens!

There lingers still the memory of Prometheus, and the shepherd boys still tremble as they point to the cliff where he is chained; there still they talk of "Jason and the Quest" and the "Golden Fleece."

There, amongst timeless ruins and vast caverns in the mountains, only less old than the mountains themselves, the memories of the ancient world still linger; the footsteps of primeval nature still echo along the deserted rocky corridors. The most ancient people in the Caucasus, one of the most ancient people in the world, are the Georgians, or, as they call themselves, Khartuli. Who they are, whence they came, none certainly know. They are traced by some to the Hittites, by others to India. Converted to Christianity centuries before Russia had ceased to bow down to the image of Perun, they have remained steadfast to their faith, and have never deserted the Cross for Islam, like the Cherkess tribes in the mountains.

The Khartuli were invaded and persecuted for their faith by heathen tribes and afterwards by Mussulmans—Sayads and Shiahs, Turks and Persians alike; and centuries of desperate fighting for their homes and their religion, have fitted them to rank with the most valiant warriors in the world.

But in their home-life, they are gentle and hospitable, fond of ease and feasting in their gardens, under the almond blossoms, in the midst of gorgeous flowers. Greek influences colour the legends of the Khartuli, and a tale of the sorrows of one of their kings, and the avenging of his death, repeats the motive of the classical myth of Iphigeneia; though in the legend of the Khartuli the avenging cranes are replaced by one of those great balls of snow-grass, that gather in the steppes in autumn, and roll on and on before the wind, growing larger and larger, as they gather the snowy down, in their wild journey across the withered plains.*

* *C. f.* the description of the 'gal-gal,' in Sir Edwin Arnold's 'Light of the World:—

"the wild artichoke
Which putteth forth brave branches in the spring,
Dying at autumn into dusty globes
That break, and fall, and roll, all, helplessly,
Ten score together in a leaping crowd,
O'er hill and vale, bounding like things possessed."

"A great calamity," says the legend, "fell upon the land of Khartuli; all its fair valleys and stately mountains, all its quiet villages and blossom-laden gardens, were invaded by the Persian hosts.

"The king himself, with his queen and their young child, had to fly before the cruel Mussulmans for their lives.

"One night the fugitive king and his queen, and their child, were wandering forlorn in a lonely valley of arid rocks, when suddenly a dark storm overtook them, with thunder and rain and fierce lightning.

"Then they took shelter from the storm in a huge hollow oak, the only tree in this mournful valley. Soon others besides came for shelter to the oak and sheltered themselves under its broad branches.

"Then the storm passed, and the thunder ceased to roll; but the king dared not come forth from the hollow of the oak; for he had overheard the talk of the men, and knew that they were thieves and robbers that sought the fugitive king to slay him and his queen and his child, and to rob them of the jewels and the gold and the crown that the queen had taken with her from the deserted palace, and to carry them away in their dishonest hands. The sun rose over the arid valley, and even its mournful rocks grew brighter under his cheerful beams, and the mountain air was pure and pleasant.

"Then the queen thought with terror that, when her child awoke, he would ask for food, and she, sad mother, would have none to give him.

"The child awoke and cried out with hunger, and the thieves heard him, and, coming to the tree, saw the child there, and the king his father, and they saw the queen and the treasures that she had.

"Seeing them draw their daggers, the king said:

"'Khartuli, I am your king, and I am unarmed. What will become of your country, if you kill me? Who will lead the army against the Persians when it comes back from beyond the mountains? Who will succeed me on the throne, if you kill my heir, my only child. But if you are merciless, let me at least die before my wife and before my child.'

"But the robbers listened not to his words, but slew him, and the queen and the child. And as the queen was dying, before the breath had quite left her fair bosom, between the rocks she saw on the distant plain, a great ball of snowgrass driven along before the wind.

"'Let that ball of snowgrass,' cried she, 'be our Avenger, and a witness against you.'

"But the robbers only laughed, and heeded her not.

"A year passed by, and the land of the Khartuli was freed

from the Persians. New corn was gathered, and new grapes were pressed for the rich red wine. A new king sat on the throne of the Khartuli, and the Khartuli hoped soon to be by new battles freed from tribute to the Persians. A fair was held in Mzheti, the capital of the Khartuli; and gay and noisy was the market-place, when the crowd was attracted to a group of strangers, by the strange words of one of them.

" 'There!' said he, laughing, and pointing to a great ball of snowgrass that rolled across the steppe, 'there is the Avenger of the king's death, and the witness against us.'

"And the men of the city had not forgotten their beloved king, and they asked what meant the stranger's words. And the stranger denied that he had spoken anything, and his companions grew fearful, and grasped the hilts of their daggers.

"Then the Khartuli knew that they were the murderers of the king, and they seized them, and they confessed their crime, and were put to death."

The valorous, indolent Georgians despise and are victimized by the keen, mercantile Armenians, whose Jewish features, manners and speech well represent their money-lending, money-gaining character. As the Jews prey on the Poles, and the Armenians prey on the Georgians, so the Persian Sarti of Turkestan prey on the Finno-Turkish nomads of the steppes; and as the Poles detest and despise the Jews, and the Georgians detest and despise the Armenians, so the nomad Kirghiz tribes despise the Sarti of the cities and bazars. Many a song and satire have the Kirghiz composed against their enemies, and many a legend tells how a noble-minded, free Kirghiz fell victim to the wiles of the dogs of Sarti. The Kirghiz is the nobleman of the desert, in his own belief, the brave horseman, free as the steppes, and brave as a lion. Though Mussulman by faith, he has no mosque, and no priests, and his old traditions still linger and colour his life and thoughts.

One of the finest legends of the Kirghiz is the story of the "Dark Horseman," and they still sing it in their *aïls*, while the snow is drifting across the lonely steppes. All the life of the Kirghiz is told in this legend, and no writer could give so true a picture of their character and thought as they give themselves, in the "Legend of the Dark Horseman"*

"Long ago it befell; long ago! Since then, many a flood has swept down Irghiz and Ori; since then, mountainous sands have drifted on dead Bek-Padali; since then, the fresh green grass has withered to countless summers; since then, times without number, the birds have flown south over Aral, over the desert waves and bitter waters of Aral; since then, babes have

* Kara Jiggit: "The Black Horseman."

grown old ; since then, Kurgans have risen, built on the bodies of heroes, in the gloomy auls* of the dead.

" It befell while the Kirghiz nomads knew no power but their own ; while the word of the grey old men was the only law on the steppes ; while our tents were uncounted and free ; while our heroes paid tribute to no one.

" Rumours we heard of the power of the warlike Lord of Kokan ; of Bokhara's dread Emir and the fierce great Khan of Cathay ; but they were far from our steppes, and came not near our auls. The Russ from the cold dark Northland had not yet conquered our nomads ; the white Tsar's might passed us over ; his waggon-wheels marked not our steppes.

" Long ago it befell ; long ago ! when the tribes of the nomads were happy. Then, in the day of our joy, Allah bade the Dark Fiend smite us. A heavy, unknown affliction spread its black wings above us ; it crushed like a yoke on our shoulders ; it lay like a stone on our hearts. It swept away joy and pleasure, like the icy breath of the snow-wind. This heavy distress came on us unwarned by thunder or lightning ; soft as the snow-wind's feathers, it slew like the snow-wind's chill ; when none expected nor knew, our curse was already upon us.

" To our fair green steppes there came the terrible Kara Jiggit. Whence came the dread Dark Horseman, none of the nomads knew. What ill-starred day first saw him, even the wise could not tell. When our brave horsemen saw him, a deadly chill smote their hearts ; when his shadow passed by our tents, the babes cried out in their sleep ; the children shrank as he passed ; the old men trembled and frowned.

" Never was such a horseman seen on our flowering steppes ; for black was his horse like the night, and his cloak was black like the raven ; and never a drop of blood in his dead white face, as he rode ; only his eyes glowed red, like the glare of a wolf in the darkness. He carried no knife, nor arrow, nor crescent-axe at his belt ; and the hoofs of his steed were noiseless ; that steed that outstripped the lightning ; that steed whose canter passed our racers as though they stood still. To-day they saw him at Irghiz, on the white salt plains by the river ; to-morrow at Ori's banks, a six days' journey from Irghiz. The nomads wondered to see him, but wonder brought grief on their heads.

" When the Dark Horseman speaks, his words have a sullen echo, as though one spoke in the earth, and each word brings a misfortune. If he praises a maiden, she sickens, and the flesh rots away from her bones ; if he speaks to a child, it will die ; and the horse he praises, grows lame.

* Aul : " Village, or encampment."

"Kara Jiggit is gone for a while, and peace is upon our auls; Kara Jiggit returns, and his eye shows sorrow among us. They prayed him to leave them, and go in peace, but he answered: 'The steppe is broad and not yours alone!' Then breaks forth his terrible laughter, and men grow cold at the sound; the horses shiver to hear, the dogs crouch down and moan.

"Hakim Bey was a prince among us, a man of great honour. Many a thousand warriors had he, armed with his arrows and axes, scouring the steppes to the border of Russ and the Northland, for slaves and plunder. And Hakim Bey swore an oath by his head and the shades of his fathers; he swore by all his wealth, and by all that he loved and honoured, and said: 'I come not home, nor step across my threshold; nor lay me down on my carpet, nor kiss my fair sons and daughters; nor breathe the smoke of my fires, till I meet this Kara Jiggit, and, smiting him, bind him firm, that all may have their revenge, that our men and our maids may smite him, till his blood runs red on the grass.'

"So Hakim went on his quest, and warriors brave went with him. But Ablai, the Khan of the mountains from Kara-Koom to the Irghiz, warned Hakim in these words: 'Fight not with the Kara Jiggit! Leave him in peace, for, in him, you fight with no mortal man; this is the Fiend himself, the Fiend that wars against Allah! He fights with no sword, and the sword will never prevail against him.'

"But Hakim mocked at Ablai, and taunted him, saying that Ablai, the Khan, that all the steppes feared, was timorous as a woman, weak and grown old, and timid, and giving the counsels of women.

"Then for Hakim began a terrible time of sorrow; ruin for him and his house and all the tribes that obeyed him. For the sun had not gone down since Hakim went on his quest, when evil tidings came from Kara-Koom and the mountains. For the shepherds were tending his sheep without number on Kara-Koom, when a terrible burning wind arose without warning or sign, sweeping the flocks before it, across the plains to Aral; and the hurricane whirled the flocks from the cliffs to the salt waves of Aral. Then the shepherds told in fear: 'We saw the Dark Fiend in the storm wind! His night-black horse swiftly bore him amongst the wind-wreaths of sand; till he urged the flocks to the cliff, where the storm drove them down into Aral; and then he reined in his steed on the cliff, and the hurricane ceased.' Then rode he slowly away, and the shepherds crouched in the sand, asking the grass to hide them, till the Kara Jiggit rode by!

"While the shepherds told their misfortune, other messengers

came : ' A terrible plague has smitten the horses of Hakim Bey ! and the horses are dying by hundreds, as each from each takes the plague. And the plague was brought by a wild steppe pony, gaunt and ill-favoured, that came not alone, but the Kara Jiggit drove it before him. And Hakim's brother saw it, and sent a swift arrow against him, but the bowstring burst, and the arrow wounded his own fair child.'

" Meantime Hakim pursued his enemy over the steppes ; three times he met the Dark Horseman ; three times he met misfortune. Once, as his horsemen were riding, watching the edge of the sky, a sudden shadow passed them, like a wolf, to a mound in the steppes ; then the warriors closed on the mound, from right hand and left hand, and the warriors' battle cry resounded over the steppes ; the way was cut off on all sides, and Hakim Bey led them on ; but suddenly, who can tell it ? the Kara Jiggit escaped. The horsemen pursued, but what does he gain who pursues the lightning ?

" All the steeds were outstripped by the Jiggit, but Hakim's alone, Hakim's bay charger, galloping, gained on the Kara Jiggit ; Hakim's spear could almost touch him, as he cheered his bay charger on ; but his spear swerved to right and left, and harmless pierced but the air.

" Then the sharp-pointed spear struck the sand, and suddenly shattered in pieces, shivered like brittle glass, not like tough ash and steel. Then Hakim felt for his arrows, but his quiver was loosed and gone ; then Hakim grasped for his sword, but the blade stuck fast in the scabbard ; that sword that aforetime seemed to fly of itself from the scabbard, the sword with the sharp curved blade, inlaid with gold, that the Hadjee Hakim's father, Ismail, had brought from the tomb of the Prophet.

" Then the Kara Jiggit looked back, and reined his night-black steed, and the steed stood still, and Hakim's charger stood beside it. The night-black steed was fresh, as a steed that but leaves the stable ; but Hakim's charger was worn, for that gallop was paid by his life-blood ; and his knees and his withers trembled ; and the Dark Horseman laughed as he asked : ' When, madman, will you be sated of chasing me on the steppes, as a dog of the nomads chases the raven ? ' and Hakim made answer : ' Never ! Dark Fiend, till I die, or cast your bones to the dogs ! ' and the Jiggit laughed : ' Till you die ! then—but, yet, live on ! ' Then the Kara Jiggit was gone ; and the next day, passing at noon, Hakim's followers found him there, grown old and weak in a night, and there, on the grass beside him, the brave bay charger lay dead. Then they carried Hakim homeward, and, as they drew near his tents, the fire of misfortune had burned them, and only the ashes remained ; and

of Hakim's children and household only one girl was left burned and distorted, and branded by the flames; a living death. So the mighty Bey Hakim Vardi was ruined and stricken; his wealth had shrunk to the price of a camel; so, mounting a camel, he rode to the south, by the Amoo and Sir Darya, and through the land of Ivan, and by mountains and deserts, to Mecca, and, reaching Mecca, he died. And, warned by the fate of Hakim, the warriors tried no more to conquer the Kara Jiggit by the might of spear and sword. Only the Mollahs chanted their charms, and wore their spells; but the charms were vain and the spells were as weak as the spears. And they sought to appease the Dark Horseman with praise, and obeisance, and gifts; with the choicest cattle and horses, and carpets and cloth of gold. But all was in vain; for the Kara Jiggit scorned their obeisance and gifts: 'What can you bribe me with, when all you possess is mine; your rivers and steppes and mountains are mine to save or destroy.' And the nomads were cowed and fearful, and years of their woe went on; a time of famines and plagues and sorrows throughout the steppes. The sky was dark and thunderous, the sun shone pale through the wrack; the stream grew sluggish and dead, in the channels of Irghiz and Ori; the steppes flowered not, and game was wild and hard to take; and the steppes cried out in affliction at the Kara Jiggit's curse. But the curse weighed not so heavy on the lands of Ablai Khan, and the shadow of peace remained, nor deserted the old man's tents.

"Years pass by; and the years, as they pass, bring growth and increase. Khan Ablai's fair grandchild grew, the child of his son that was slain by the enemy's bullet among the rocks and ridges of Ural. The young maid grew, to the wonder of all, to the envy of maidens. Tall and straight as an arrow grew Long-hair, Ablai's grandchild; Long-hair they called her, for rich and dark were her locks, like the raven's; when bathing her horse in the lake, the beautiful maid needed no robe; she was only clothed by her tresses that wrapped her round like a cloak; and two of her friends who came at dawn to plait her tresses, were busy from dawn to dusk with the tresses of Uzun Chash.*

"When mounted on horseback, who could equal young Uzun Chash? And when they played the Wolf-game,† none would rival fair Long-hair; as she galloped past in the Wolf-game, the young men felt her lash, and never a kiss in forfeit had pressed her full red lips.

"Her twentieth summer came, and Long-hair was ripe for marriage; her twentieth summer passed, but Long-hair was

* Uzun Chash (Kirghiz): "Long-hair."

† Kizburi: a Kirghiz game played on horseback.

still unwed ; though her father sought no wealthy suitor with flocks and herds. But the maid herself was unwilling to enter a weak man's tent : ' Shall I wed one I have lashed, and outrid at the Wolf-game ? Nay ! the one I wed must be stronger and swifter than I ; one who can overtake me, and kiss me against my will ; one who can master my spirit, and not a weakling like these ! ' So spoke the maid, and the suitors came from the ends of the earth. A Mongol came from the Tsardom of China ; a merchant from Iran ; a Turkman on wind-swift horse ; and a Russ-Kazak from the borders ; but all went sorrowful home, and the maid remained unwedded : and they mourned that the maid would leave no children to bear her beauty.

" But at last her heart was subdued by a lowly suitor, a shepherd. He won her, the humble shepherd, not by a hero's strength, not in the fiery gallop, not with a warrior's might. Allah Yar won her heart by the gleam of his large dark eyes, and by the sweet songs that he sang when the nomads gathered to listen. And Ablai Khan was glad, and blessed his grand-child's suitor ; he prepared a rich wedding feast, and sought no gifts from the bridegroom. He gave Allah Yar a flowered robe that came from the looms of Iran ; and bade him choose from his horses, and dowered him with precious gifts.

" The beautiful Uzun Chash gave her lover, Allah Yar, all her dazzling glances and all her noisy kisses. All day the shepherd lingered at the threshold of Ablai's tent, thrumming his zither and singing songs never sung before : songs of the sun, and the mountains, and the pathless forests and rocks ; songs of the mists of morning and the treacherous desert mirage ; songs of the flowers on the steppes, of the eagle that soars above them, a tiny speck in the sky. He sang of the heart of the man, and the war between Shaitan and Allah ; he sang of the grey-haired past, of what is, and what is to be. And the people listened and sighed, and old Ablai shook his head, and the beautiful Uzun Chash, listening, smiled and wept. And, may the time be propitious to say it, months had passed since any had heard of the Kara Jiggit. The wedding time dawned bright, and the guests came in from the steppes, called and uncalled alike ; and the tents reached to the edge of the sky. And Tamurlane in the olden time never saw such a host of tents.

Uzun Chash kept her tent, in the custom of the nomads, shut in with her mother and comrades, and one friend loved before all ; this well-loved friend was a stranger, a humpback girl, and deformed ; small and weak and pale, and her hair was white like the snow-grass, and her eyes were blue as the sky in spring when the sky-lark carols. One of our horsemen brought her

mother from the Northland, a wounded captive whom none tended, or held back from death ; but ere she died, this girl was born to the captive, and Ablai pitied the child, and took her to live in his tent, with the beautiful Uzun Chash, the child of his son that was dead. The captive's child and Uzun Chash had grown together, but Uzun Chash was strong, and the captive's child was so weak and small, that Uzun Chash caught her up and carried her like a child ; so weak was the captive girl that no one asked her to work, for how could she work when the breezes shook her like the light snow-grass ?

"All the maids of the nomads had horses to ride on the steppes, and the captive girl Ak Jan's* horse was weak and deformed like herself, but white as the snow, and gentle as Ak Jan, she of the White Soul. Strange it was to see Ak Jan on her snow-white steed, smiling to all, and laughing, like a silver bell in the breeze ; her laugh that drove away gloom, and checked the hand raised in anger. All the aul loved her for the peace she brought among them. Ablai's son, Nur-ek Batir, the revengeful, whose worth was not as the wolf's breath, even Nur-ek Batir was calmed by Ak Jan's pleading. Ak Jan's face was lovely, though she was shrunk and deformed ; but none of the youths of the nomads sought her with love's caresses ; only Allah Yar, when he sang, loved to have her near ; and Uzun Chash grew not jealous to see her, but loved her the more. Such was Ak Jan, the White Soul, the captive child of the nomads ; such was the friend of Uzun Chash, the daughter of Ablai.

"Half a moon of the wedding-time passed, and the free nomad people rejoiced and made themselves glad with games and eating and drinking. Allah Yar sang all day, and the guests rejoiced and made merry. Still from all side guests came in for the feasts and the wedding ; camels and caravans laden with presents came. All that passed on the steppes turned hither to feast at the wedding. At last the solemn day came, the day of the rites and the blessing, the day of the greatest feasts, when the bride went out to the bridegroom. And all gave thanks to Allah, that in the might of His goodness, He had led astray the Dark Fiend that harassed the nomads.

"The fires were lit before dawn, not faggots, but Kurgans of fire ; and troops of fat colts and rams were slain and prepared for the feast ; and the flesh of the rams and colts simmered and seethed in cauldrons. The black smoke rose from the fires and crept along the earth ; the smoke crept into the nostrils of the sleeping guests, and brought to their dreams the sense of the feast that seethed in the cauldrons. Before the dawn the girls had bathed and decked themselves with ribbons.

* Ak Jan (Kirghiz): "White Soul."

Uzun Chash slept not, but shivering lay on her couch, for the shadow of evil hung, like the chilly night-mist above her.

"Then the sun rose and painted the mosques and minars, and Kurgans. And Ablai Khan came forth in a robe as bright as the morning; the pointed cap on his head was stiff with red gold and turquoise. The old men came out with Ablai, the portly fathers; they seated themselves in a circle on a well-flowered Khivan carpet; then the guests, called and uncalled, were grouped in a crescent round them; the first rank sat on the ground; the second rank stood behind them; the third rank mounted on horseback, two and two on the horses; the next rank sat on high-humped camels; that all might see. And on the flowery meadow the youths and maids on horseback, galloped and cantered emulously in the swift maze of the Wolf-game; and the portly fathers smiled at the thought that fresh proposals for the fair hands of their daughters might follow the Wolf-game to-morrow.

"To-day Uzun Chash rides not, nor joins in the merry Wolf-game; none of the nomad youths will she put to shame to-day, with the skill of her horsemanship; let them struggle and strive with their equals. An hour passed by, and another, and the sun was nearing noon; the horses are streaked with foam, and all the young horsemen are weary; the girls have laid by their horsewhips, and the youths have caressed their filly.

"Then in the heat of noon-day, a sudden chill wind smote them, keen as the sword of winter, when the ice-drift whirls the snow. Suddenly all in terror saw the dread black steed beside them, and on the night-black steed the accursed horseman sat. Lightly poised in the saddle, he viewed the assembled guests, and his poisonous laugh rang hollow as he taunted the nomad youths: 'Great heroes you, with the hearts of hares, these girls are your equals: Doff your warriors robes, and join in the tasks of milkmaids. Still I have heard there is one among you, a skilled horsewoman; though doubtless this, too, is a boast as empty as wind. Where is this matchless rider? Is she hiding somewhere in your tents? Let her come out and show us her skill?' And the Dark Fiend laughed, laughed as he turned to the tent where Uzun Chash was waiting.

"Waiting there in the tent, Uzun Chash heard in anger, and her eyes flashed fire; but they whispered: 'Let him taunt, for his sinful words cannot harm you; let him laugh to his heart's content.' But the voice was heard again, as the Kara Jiggit leant on his night-black steed: 'Her answer: what does your horsewoman answer? Or is all her praise but boasting? Is your vaunted champion no better than all your nomads? Is

the horsewhip as tame as the hand, and the shepherd as frail as the lambs? Now the true shepherd has come, she trembles and hides in her tent, pale and afraid, like the sheep when the wolf comes near the fold.'

"Then Uzun Chash was wroth, and suddenly rose from her carpet; and Ablai Khan was afraid and came to the tent to stay her: 'Go not, my daughter:' he cried, 'how can you struggle against Him? against whom nor sword nor the prayers of the Mollahs avail? Hakim, the fierce, the warrior, was stronger and bolder than you, but Hakim the fierce is dead, and the pride of his life is fallen.' The women and children joined their voices to Ablai's prayer, they kissed the ground at her feet and beseeched her not to go; the young men gathered round her; the guests and friends barred the way.

"'Let him taunt:' they cried, but the voice of the Dark Fiend answered: 'Guard her well, your false horsewoman; guard your helpless lamb: see that the sheep and the crows on the steppe, or the mice, do not harm her.'

"Our warriors clutched at their swords, but, remembering the fate of Hakim, and Hakim's impotent strength, they drew not swords from the scabbards. The beautiful Uzun Chash had passed through the crowd ere they saw her; had lightly mounted her horse, and lashed him into a gallop; then, passing the Kara Jiggit, her raised whip answered his challenge; the Kara Jiggit sprang forward, and the terrible race began. It was no race of the nomads, but rather a dire misfortune. For the nomads saw that Uzun Chash rode not wisely; she galloped hither and thither, as if she had grown blind or mad; her horsewhip fell, her hands grew slack on the reins, and she trembled. Then she wildly grasped at the mane of her horse, but suddenly fell fainting. Her horse ran loose on the steppes, and the Dark Horseman swiftly seized her, and cast her across his saddle, as a wolf with a lamb from the fold.

"The nomads stood silent in stupor, not daring to raise their eyes; and Ablai Khan, the old chieftain, wept at his daughter's fate. Allah Yar, the bridegroom, tore his zither asunder, and, crying aloud, fell senseless. All was silent and still, like the realms of the dead.

"Then a wonder happened, unheard of before or since. For Ak Jan, the Pure-Souled captive, was riding by on the steppes. A smile plays on her lips, and the warm sun gleams from her eyes. Then the wind caught her up like a leaf and whirled her after the Jiggit. On a sudden, white wings like a swan's grew from Ak Jan's shoulders; the nomads saw it and wondered; the blind, in their night, saw the wings. Borne on her swanwings, Ak Jan outstripped the dread Kara Jiggit. Though seeing her not, he trembled and swerved aside, as in fear; his

body and limbs shook and quivered, like a wet twig among the embers. And his night-black steed, that never before knew weariness, stumbled and slipt. Ak Jan pressed hard upon him ; her horse had outstripped the Jiggit's ; the dust of the chase wrapped them round ; the white wings only were seen.

"Then smoke and flame gleamed round them, the hard earth groaned and cracked ; when the gaping earth closed up, and the Kara Jiggit was gone.

"Since then the nomads no more beheld the Kara Jiggit ; since then, the curse of his poisonous laugh was no more upon them. The long fair-haired bride was saved ; but since then, no more was Pure-Souled Ak Jan seen ; only a moment she flashed in the blue of the sky like a sea-mew ; flashed and was gone like a white sea-mew that flies over Aral."

Almost as noteworthy as its local colouring is the artistic rightness of construction of this Kirghiz ballad ; a rightness that cannot have been the result of deliberate effort, but grew into the ballad in the centuries it was handed down from bard to bard of the Kirghiz tribes. Each song or theme of the ballad serves a particular purpose in the effect of the whole. The canvas, or general background, of the old steppes before the free nomads knew the Russ, in the first song ; then a vague, mysterious picture of the Dark Horseman, followed by the clear personal details of the defeat of Hakim ; then the fresh, new colours of the surrounding Long-haired daughter of Ablai's son, and the free life of the nomads ; shutting out almost the memory of the accursed Albasti, but for the simple note at the end of the marriage scene, that forewarns us of the catastrophe, Then the rich Oriental colouring of the wedding feast, the sudden appearance of the Dark Horseman, and the swift terrible fate that overtakes him.

The finest art, the most deliberate artifice, could change nothing in the sequence of the songs, that would not be a change for the worse.

The Kirghiz's neighbours, the Kalmuks, are also wanderers : men of tents, of flocks and herds, like the Patriarchs of old. They pitch their white felt tents in the plains between the Volga and the Don. A few carpets from Persia, and bright Indian silks adorn the tents of the chief and the temple where the sound of the conch-shell calls the believers to worship. Tables and chairs there are none in the white Kalmuk tents ; a few chests of brightly painted wood, with the wrought hinges of iron, a strip or two of felt for bedding, and bowls of real China, brought overland by the caravans, are their only furniture.

The Kalmuks are devout Buddhists, and their Lamaic hierarchy's power over them is second only to the Tsar's.

The forms of their faith and their legends are Thibetan, some of them of singular beauty and charm.

"At the beginning of creation," says a Kalmuk legend, "under the serene sky of High Thibet, a green bush spread its leaves. His daily journey ended, the red sun sank, and the evening mist veiled the earth, and on one of the bush's branches was born a modest flower. The flower charmed not the eye with the rose's richness; she did not outshine all blossoms like the proud lotus; humble and plain she opened her chalice, and timidly looked at the great Buddha's world. All around her was dark; her sisters slept on their slender stalks; the moths flew by unheeding, and the poor flower drooped in loneliness. Lo! On the dark sky, sparkled a tiny star, and his beams shone through the soft night air. The star-beams revived the little orphan flower, they fed her with fresh dew. The flower raised her head in wonder; she saw the friendly star, and thankfully received his rays into her bosom, and her life was transformed.

"Dawn drove away the darkness, and the star faded before the lord of day. Thousands of blossoms bowed low to him, and his rays fell rich on the night-born modest flower, but the silvery beams of the star were in her heart, and she coldly greeted the lord of day. She felt still the star's soft beams, and the life-giving dew, and turned her head away from the blazing monarch of day, and gathered her petals together, and hid herself in the leaves.

"From then day was the dusk, and night was bright day to the flower, and when the sun rose and poured his gold over earth and sky, the flower drooped down and laid her head beneath the green leaves.

"When the sky grows dark, and on the horizon the silver star sparkles, the flower welcomes him, and drinks her heart full of his silvery beams."

CHARLES JOHNSTON.

ART II.—THE TURKS IN THE MOREA.

Sir Richard Church, C.B., G.C.H., Commander-in-Chief of the Greeks in the War of Independence. By Stanley Lane-Poole, Author of the *Life of Viscount Stratford de Redclyffe*. With two plans. London: Longmans, Green & Co. 1890.

The History of Greece under Othoman and Venetian Domination. By George Finlay, LL.D., Hon'ble Member of the Royal Society of Literature, Knight Grand Cross of the Greek Order of the Redeemer, &c., &c., &c. Edinburgh and London: William Blackwood and Sons. 1856.

INSTANCES of national re-juvenescence are rare in the annals of history. For the most part nations, like individuals, pass through their successive stages of lusty youth, vigorous middle age, and senile decrepitude. Great nations, like the Goths and Vandals, the Khazars and the Alans, have entirely disappeared from the pages of history; others, like the Chinese and the Arabs, have inhabited their ancient seats, unchanged in their language, manners and customs since the earliest times of which any record has been transmitted to us. Others, again, like the Modern Greeks and Persians, have retained their ancient names and speech with many of their old national characteristics, through the most violent moral, political, and social revolutions during which their country has been inundated by hordes of invaders of a different race, language, and religion.

The South-eastern corner of Europe, now generally called, for want of a more convenient designation, by the name of the Balkan Peninsula, presents the curious spectacle of old and once famous and powerful nations, arising from the sleep of centuries, and again taking their place among the civilized States of Europe, after being politically and geographically extinct for a period of more than four centuries.

Servia was once a great Slavonic kingdom which held the balance of power between the Empire of Germany in the West and the Roman Cæsars of Constantinople in the East. Bulgaria was the adopted home of a horde of warriors, probably of Mongolian race, who left their original seats in Central Asia to found a new monarchy on the banks of the Danube, and to extend their forays to the gates of Byzantium. Greece, the birth-place of liberty and of civilization, and the cradle of all our arts and sciences, was the home of the race in which the Romans of the East were gradually and imperceptibly absorbed, and which at last gave rulers and lawgivers to the Byzantine Empire. All these nations were for many hundred years

crushed under the weight of Turkish domination, and confounded together by their Mussalman masters under the common designation of Arnauts, or the contemptuous one of R'áyás. In the decaying strength and growing weakness of their tyrants they have found their salvation and achieved their resurrection, partly by their own strenuous efforts, partly by the aid of their great neighbour Russia, who herself experienced a similar deliverance, after having been for the space of two hundred years subject to the yoke of a conqueror of Mongol race and of Moslem faith. In this long subjugation of Aryan peoples to a Mongolian master, we see the triumph of matter over mind, of brute force over intellect, of the sharp swords and strong arms of nomad warriors over the busy brains and skilful hands of traders and handicraftsmen. The result has been the ruin and desolation of vast countries which were once the fairest portion of the earth, and the relegation of one of the most mentally gifted of the Aryan nations to a helpless condition of semi-oriental barbarism, from which it is only now beginning to emerge.

But the lamp of learning which was extinguished by the Turks in its native home, was fortunately re-lighted by Grecian fugitives from their victorious arms in Western Europe; and the revival of the arts and sciences among our favoured nations dates from their extinction in Greece by the barbarous arms of Murád and Muhammad.

During the long decline of power of the Roman Empire, the land of Greece suffered some invasions from the Northern barbarians, and some depredations from the descents of the Arab corsairs of Africa and Crete: but for the most part the country was peaceful, and the inhabitants were prosperous.

Surrounded by the sea, and undisturbed by the wars urged against Saracens and Bulgarians on the frontiers of the Empire, the Morea was in the happy condition of a country which had no history. The Byzantine Empire was then the most civilized Power in the world, and the Greeks were a refined and enlightened people, amongst whom the arts and luxuries of the Augustan age of Rome were still cultivated, compared with the Franks and Normans of Western Europe, who were only just emerging from their ancestral barbarism. The science and letters of the Arabs, which reflected so much splendour on the annals of the Abbasside Khalifs of Baghdad and of the Omniades of Kortoba (Cordova) in Andalus, were directly borrowed from the Greeks: and the treatises of Arabian geographers and philosophers of the time betray at every page their obligation to Grecian originals.

But the Crusades, undertaken in the interests of Christian fanaticism, brought the Normans and Franks to the shores of

Greece; and the Latin Christians beheld, in the orthodox Greek, heretics scarcely less obnoxious to the champions of the Cross than the Mussalman mis-believers. Religion swayed the political prejudices of the age; Popes and Khalifas had the chief hand in the making of history; and the absorbing idea and pet project of the Papal policy was the subjugation of the Greek Church, and the assumption by Rome of the spiritual dominion over Eastern as well as Western Christendom. For this object the Popes laboured in vain for centuries, and used the terrors of the Turks as a bugbear to frighten the wandering sheep of the Greek and Slavonian flocks into the fold of St. Peter. The Fourth Crusade was diverted from its purpose to capture Constantinople, and to set up there a Latin Empire and a Catholic Church. In the anarchy that ensued, the greater part of the land of Greece was occupied by Frankish barons and knights, and Norman soldiers of fortune. These adventurers founded a principality in the West of the Peloponnesus, which lasted for nigh two hundred years, and was called the Frank kingdom of Achaia. The Venetians occupied and fortified the sea-ports; an Italian knight proclaimed himself Duke of Arta, and reigned over Acarnania.

The Catalan Grand Company, a force of Spanish and Italian mercenary soldiers, having discovered that it was more lucrative and more satisfactory to make war on their own account, than at the bidding and for the wages of foreign sovereigns, set up a sovereignty of their own, and established a Military Republic in Athens. Such districts on the mainland and in the Morea as were not occupied by the intruders, were administered by Greek "despots," generally scions of the Imperial family. For the space of two hundred years there was perpetual war and devastation in Greece. The Frank knights and barons established their own feudal system in their domains, and waged private war with each other, unrestrained by any fear of a powerful suzerain. Franks, Catalans, and Greeks all fought against each other continually and indiscriminately.

When the Franks had first entered Greece, the country was both prosperous and populous; and the mass of the people were ahead of their fellows in Western Europe in wealth and comfort. The institution of the feudal system reduced them to the condition of serfs; and their antipathy to their alien lords was aggravated by the schism between the Greek and Latin Churches. The Pope and his Bishops hounded on the crusaders to atone for their sin in renouncing the Crusade by persecuting the schismatic Greeks into the true fold; and religious bigotry exasperated the resistance of the Greeks to the vexatious tyranny of the feudal system.

The Franks, far from succour and support by their own

countrymen, were gradually oppressed by the numbers of their enemies, and, in spite of the aid afforded them by the Pope and the Venetians, lost ground continually, so that, at the end of the fourteenth century, only a remnant of them still maintained themselves in the districts round Elis and Patras, and on the West coast of the Peninsula. It is to these parts of the country in the possession of the Franks that the name Morea seems to have first been applied, which was afterwards extended to the whole Peninsula. But the Greeks had hardly shaken themselves free from the bondage of the Franks when they were doomed to bow beneath a heavier yoke, and to submit to a more hopeless slavery. The little finger of the Mussalman Turk proved thicker than the loins of the Catholic Frank, and for four miserable centuries the Greeks existed only as a nation of slaves to a race intellectually inferior to themselves and differing from them in race, language, and religion.

The relations of a dominant to a subject people always present an interesting problem to the student of history ; and it is our present purpose to study the effect of the Turkish domination of four centuries on the history and character of the Greek nation. At the commencement of that period the Grecian people presented the spectacle of an intellectually gifted and mentally cultivated race which, under the influences of a despotic Government and the blind superstitions of a corrupted religion, had lost its moral fibre, and sought happiness in the service of self, instead of in the pursuit of honour and virtue. The Turks were a people who esteemed and regarded nothing but arms and valour, united in submission to a single directing will, and firmly convinced of a Divine Commission to conquer and to convert the unbelievers.

The Ottoman conquest was doubtless a succeeding ripple of the great Mongolian migrations under Changhiz Khán and his successors, which had commenced to overflow Western Asia and Eastern Europe a hundred years before Othman Khan raised his standard in Bithynia, and rallied to the horse-tails all the scattered tribes of Turkish race whose hopes and homes had been ruined by the Moghal deluge. The conversion of the Tartars themselves to Islam gave a fresh impulse to the warlike spirit of the religion of the Prophet, and the *Jehád* against the infidels again became the ruling political motive of the Muhammadan world. From all the harbours of Asia Minor bands of hardy sea-rovers issued under the Ottoman flag, to prey on the coasts and commerce of the Christians.

Their pirate-gallies—sometimes fighting, and sometimes flying from the forces of Venice and the Knights of Rhodes—scoured the Ægean, and visited all the islands of the Archipelago, ravaging some, and establishing colonies of corsairs in others.

These Gházis of the sea were the first Turks who found their way to the shores of the Morea, and, in the fourteenth century, their depredations had become a serious evil to the country, and already tended to the depopulation of the coast districts. But the first entry of the Turks into the Morea by land was brought about by the Greeks themselves. The Ottoman armies had already overrun Thrace and Macedonia, and threatened the independence of Servia and Bulgaria. The fame of their exploits had reached the Morea, and the Greek Despot Theodore, son of the Emperor John the Fifth, being troubled by his own rebellious subjects, and by the hostility of the Frank Lords of Elis, invited the Turk Evrenos, the famous general of Murád the First, to come to his assistance. The name Evrenos suggests a Greek origin, and its bearer was perhaps a renegade, as were many of the Mussalman leaders in the early wars of the Ottomans. The splendour of their military exploits, the hopelessness of effectually resisting them, and the dislike of the Eastern Christians to conformity with the Latin Commission, which was always pressed upon them as the price of Frankish assistance or protection, drove many high-spirited Greeks to adopt the Crescent, and to arm themselves with the scimitar.

In the year 1388 A. D., Evrenos entered the Morea at the head of a corps of Turkish cavalry, subdued the enemies of the Despot, and received the stipulated reward. Nine years afterwards, the first Turkish invasion of Greece took place. Sultan Báýázid, surnamed Yilderim (Lightning), was triumphing, after having destroyed the army of the European Crusaders at Nicopolis on the Danube, when the Greek Bishop of Phocis, out of enmity to the Frank Lords of Bæotia and Attica, sent a secret message to the Sultan, inviting him to enter Greece. Báýázid was passionately fond of field sports, especially hawking, and maintained a corps of seven thousand huntsmen and seven thousand falconers. Muhammad the Second, the conqueror, afterwards formed from these Chasseurs thirty-three new regiments of Janissaries, who ever after retained the title of Sagbáns (Dog-keepers), until the suppression of their regiments with the rest of the corps in 1827. The Bishop, knowing Báýázid's weak point, assured him that the land of Greece was one vast meadow teeming with water-fowl and cranes (the "Káz-o-Kulung"), which presented the most charming feature of the landscape to the eye and ear of the oriental sportsman. The Sultan accordingly broke up his camp and marched into Thessaly, well pleased with the prospect of 'fresh fields and pastures new' for his field sports, and virgin regions for the plundering and slave-hunting excursions of his Turkish horsemen. In those days the camp of

the Ottoman Grand Army, like the Urdú-i-Humáyún of the Moghal Pádisháhs of Hindústán, was the capital of the State; and the annual campaigns of the Turkish armies were gigantic cavalry raids, undertaken principally with the object of collecting booty and slaves, whose sale or distribution reimbursed the expenses of the war, and formed the remuneration of the soldiers.

The treacherous Bishop betrayed the Pass of Thermopylæ to the new Oriental invader, and Báyázid encamped in the plains of Thebes. The Norman Duke of Delphi was lately dead, and his widow Trudaluda was forced to resign her principality to the sceptre of the Sultan, and her beautiful daughter to his embraces. The Turks plundered and spoiled the whole country from sea to sea; and while the Sultan amused himself with field sports, he despatched a Turkish force to ravage the Morea, under the command of two generals, Ya'kúb and Evrenos. After passing the Isthmus, they divided their forces: Evrenos proceeded against Argos, which was then held by the Venetians, and the report of its wealth excited the cupidity of the Turks. The city was stormed and sacked, and the Mussalmans were rewarded by a rich booty. Ya'kúb turned towards the West and ravaged the whole country down to the South coast, while Evrenos did the same in the Eastern districts. They then retired, carrying off with them thirty thousand slaves, most of them being women and children, who were either appropriated by the soldiers, or sold for the benefit of their captors.

The Despot of the Morea, and the Frankish Dukes of Elis, Athens and Acarnania, all hastened to avert further calamities by offers of submission and tribute, and the Sultan, having exhausted the resources of Greece, graciously accepted their offers, and evacuated the country to prepare for Asiatic wars. His defeat by Amir Timur paralyzed the power of the Turks for a time, and gave Greece a respite from their attacks for a space of thirty years.

In the year A. D. 1415 the Emperor Manuel the Second visited the Morea, and took steps to secure the province against the dread of further Turkish incursions. He built a wall across the Isthmus of Corinth, extending, for between seven and eight thousand yards, from sea to sea. The Greeks called this defence the Hexamilon, or six-mile wall. It consisted of a solid masonry rampart and ditch, and was strengthened by a hundred and fifty towers. It was built by forced labour exacted from the peasantry. Manuel left his son Theodore as Despot to govern the Morea. The Greeks were gradually recovering all the country from the Frankish intruders, and in A. D. 1430, the Latin Kingdom of Achaia was entirely

extinguished, their last stronghold, Patras, being captured by the Greeks.

In A. D. 1422 Sultan Murád the Second besieged the imperial city of Constantinople, and Tura Khán, the Ottoman Beglar Beg of Rúm-ili, was ordered to invade Greece. In the spring of the year 1423 his army appeared before the Hexamilon. The Greek troops were insufficient to man the extended wall, and the Turks easily penetrated the defences at several points. Tura Khán overran the whole country, overthrew the Greeks wherever they ventured to withstand him, and erected pyramids of the skulls of the slain as trophies of his victories. At the end of the season he retired with much booty and many slaves into Thessaly. The Despot Theodore, son of the Emperor Manuel, invited colonies of Albanians to settle in the Morea, to fill the gap in the population made by the inroad of the Turks; and this was the commencement of an immigration which led to the establishment of a large Albanian population among the Greeks of the Morea. The two peoples did not coalesce, but generally occupied different districts.

In A. D. 1443 the young prince Constantine Paleologus, who afterwards became the last Roman Emperor of the East, was Despot of the Morea. In that year the confederated kingdoms of Europe had prevailed against the Turks; John Hunniades, the "White Knight," had driven them beyond the Balkans; and Iskander Beg had seized the opportunity to renounce Islam and to raise the standard of the Cross in Albania. Constantine could not resist the temptation to throw off the ignominious yoke of the Turkish tribute, he levied all the forces of the Morea and marched against the Turks in Thessaly. Tura Khán, the Beglar Beg, was at his post with the Grand Army; but his son 'Omar Khán was commanding in Thessaly, and he met the Greeks in the field, and easily defeated them and drove them back into the Morea. Meanwhile Sultan Murád the Second had completely defeated the confederated Christian armies at Varna, and the Turkish arms were again triumphant. The Sultan resolved to punish the presumption of Constantine and led his army into Thessaly. The season was already far advanced, but, on a consultation with Tura Khán, Sultan Murád resolved to finish the business of the Morea that year. He accompanied the advanced guard of six thousand men to the Isthmus, where he was confronted by the Hexamilon rampart, manned by the whole available Greek force of the Morea, commanded by Constantine. Sultan Murád reconnoitred the wall, and, seeing its strength and the number of the defenders, became very angry with Tura Khán, and reproached him violently for having brought him upon

such a difficult and dangerous enterprise at the beginning of winter. The old Begler Beg, however, assured his majesty that he would find it an easy conquest; and so it proved. The main Turkish army soon arrived, sixty thousand strong, with a large train of artillery, and batteries were erected and trenches opened against the Greek fortification. After a four days' cannonade Murád gave the orders for a general assault; and at dawn the whole Turkish army advanced to the attack. The Janissaries mounted the rampart: and one of them, a Servian renegade, named Khizr, planted the banner of the Crescent on the top of it, in the full view of both armies. The Greeks fled in panic terror: and the garrison of Corinth abandoned that strong fortress and city to the invaders. Nine hundred Greeks, who were made prisoners, were redeemed for money from the soldiers who had taken them, and were then solemnly massacred by the Janissary recruits, by order of the Sultan, according to the usual Turkish custom. The Sultan's army spread all over the Morea, and the Despot and his soldiers shut themselves up in the castles and fortified towns, while the Turks wasted the country at their will. Murád laid siege to Patras, but, being unable to carry it by storm, without regular approaches, and the season being now far advanced, he led his troops out of the Morea, carrying with him sixty thousand captives. The Turkish historian, gloating over the capture of so many infidels, informs us that the glut of slaves in the Turkish camp was so great, that the most beautiful Greek women were sold for three hundred aspers a piece.

In 1452 Constantinople was besieged for the last time by the Turks under Muhammad the Second, the son and successor of Murád. The Despot Constantine had meanwhile ascended the Imperial throne, and his brothers Thomas and Demetrius divided the government of the Morea between them. In order to prevent their sending any assistance to their brethren in the besieged capital, Tura Khán a third time invaded the Morea. The Hexamilon had been ruined by Sultan Murád and was passed without difficulty. Tura Khán's two sons, 'Omar and Ahmad, led Turkish divisions, which scoured and ravaged the whole country; the Despots and their soldiers shutting themselves up in their castles. But as the Turks were evacuating the country, encumbered with spoil and slaves, a brave Greek commander, named Matthew Asan, fell on their rear guard in the Pass of Tretos between Argos and Corinth. The Turks were overthrown with great loss, and their general Ahmad was made prisoner. The Despot Demetrius, however, who only wished to be rid of the Turks at any price, released him and the other prisoners without ransom, and sent him back with friendly overtures to his father Tura Khán. The two

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Despots, to avert a further invasion, agreed to acknowledge the suzerainty of the Sultan and to pay a yearly tribute of twelve thousand gold ducats.

The exactions and petty tyrannies of the Greek Despots caused a revolt of the Albanian settlers in the Morea in A. D. 1454, and old Tura Khán led a Turkish army across the Isthmus for the fourth time to quell the outbreak, and to restore order in the country. The two Despots were equally foolish and incapable, but Demetrius was remarkable for mildness and vacillation, while Thomas was rash, headstrong, and cruel. They quarrelled incessantly, and encouraged the subjects of each other to revolt against the same exactions and oppressions which they practised upon their own. Tura Khán, on this occasion, after re-settling their affairs, gave both of them some fatherly advice, "which did honour equally to the head and the heart of this experienced old warrior who had grown grey in the Grecian wars."

But they did not profit by it, and in A. D. 1458, the scandal of fratricidal wars in the Morea and the cessation of the stipulated tribute brought the Sultan Muhammad across the Isthmus. He entered the Morea in May and made it the theatre of his summer campaign. The Despots made abject submission to him, and but few towns ventured to hold out against him. Those which did, were reduced to ashes, the male inhabitants massacred, except the boys, who were reserved for recruits for the Janissaries, and the women and girls made slaves. At the capture of one castle, twenty Albanians were found among the defenders who had been previously taken by the Turks and released.

The Sultan was resolved to make a signal example of men who had so abused his clemency as to bear arms against him again: so they were tortured by having their wrists and ankle-joints broken by blows of a mallet, and were left to expire in that miserable state. From this deed the name of the place was ever after known to the Turks in the Morea as Tokmak Hisári.

The Sultan reconciled the brothers, re-adjusted the boundaries of their districts, and recovered the arrears of tribute: he then annexed the Isthmus and the towns of Corinth and Patras to his own dominions, in order to enjoy at all times free access to the Morea; and he appointed 'Omar, son of Tura Khán, to be Páshá of the new district. At the same time Attica and Acarnania were annexed to the all-absorbing Ottoman Empire. The latter province was seized from an Italian chief, who called himself Despot of Arta and Duke of Acarnania. His name was Carlo di Tocco, so the Turks called the new province Karli-ili or "Charles' country."

Athens was taken from another Italian reigning family by 'Omar Páshá ; the Duke Franco Accainoli, who had been a hostage among the Turks in his youth, and was a favourite with Sultan Muhammad and with many of the Páshás being allowed to reside at Thebes. Muhammad came to visit Athens on his way back from the Morea, and when he saw the situation of the city and the splendid buildings of the Acropolis, he was delighted with his new acquisition and exclaimed : "Islam owes much to the son of Tura Khán !"

But 'Omar Páshá was destined soon to experience the deceitfulness of the favour of princes. The Sultan had hardly quitted Greece, when the Despot Thomas repudiated his vassalage, and attacked his brother Demetrius whom he stigmatized as the ally of the Mussalmans. The whole country was again in an uproar ; and the Turkish garrisons of Corinth and Patras made plundering excursions everywhere. Sultan Muhammad complained that 'Omar Páshá had not maintained the order which he had established ; and appointed Hamza Páshá to succeed him. Hamza Páshá collected an army and invaded the Morea (A.D. 1449), advancing against the town of Leon-dari, the capital of the Despot Thomas' district. The Greek army was drawn out in front of the city to dispute his advance. The ignorance of Thomas had disposed it in one dense and unwieldy line. The Ottoman army approached, and Yúnus Beg, the A'ghá, a general of the Turkish Sipáhís, rode out to reconnoitre the Greek position ; and observing their clumsy formation and slow movements, observed sarcastically that he would soon teach them to manœuvre more expeditiously : then, advancing rapidly at the head of his Sipáhís, he suddenly wheeled them, and came down at racing speed on the flank of the Greek line, rolling it up and tumbling their whole army into irretrievable ruin, before any other corps of the Páshá's army could share in the attack. Fear accomplished with ease a manœuvre which the Despot's military science could never have achieved, and the Greeks fled with precipitation to the shelter of the city walls that they such left two hundred corpses on the scene of their defeat.

Thomas again submitted to the Turks, and again promised to discharge his tribute. Again he failed to send it, and again the brothers resorted to hostilities with each other : the patience of Sultan Muhammad was at last quite exhausted ; and he determined to settle the Morea for good and all. He was busy preparing for a campaign against the Sultan Uzum Hasan of Persia, of the Turkoman dynasty of the Kará Kojúnlu (Black sheep), but now he postponed his Persian expedition to the following year, and, in A.D. 1460, marched once more into the Morea.

The Despot Demetrius surrendered to him, but he had sent his wife and daughter for safety into the keeping of the Venetians in the fortress of Malvasia. The Sultan demanded the daughter for his own couch, and sent 'Isá Beg, the grandson of Evrenos, to Malvasia, to demand the surrender of the fortress and of the refugee ladies. The Venetian Governor refused to surrender the town, but he allowed the wife and daughter of the Despot a free choice: and they accompanied 'Isá Beg to the Turkish Camp. The Sultan, however, did not care for the Greek princess on a closer inspection of her charms: and it is said that he neglected her society, though she remained immured in his seraglio. He gave Demetrius a pension and sent him to reside in Asia. He now overran the whole of the Morea, occupying all the towns and castles and repressing all opposition with the greatest ferocity with the deliberate purpose of striking terror into the Greeks and cowing them into submission. When a town resisted his arms, after it was taken, he put to death not only every living human being, but even all the dumb animals and beasts of burden found in it. While he was occupied in one quarter, he sent detachments of his army into others, and one of these was commanded by Zagan, the Kapitán Páshá, who laid siege to the town of Santimeri. The garrison which was composed of Albanians, capitulated on terms, the inhabitants being assured of their liberty and property: but the Turks violated the capitulation, plundering the town and enslaving the women and children.

In consequence the neighbouring garrisons, which had been ready to submit, closed their gates against the Turks. The Sultan was angry at this, and disgraced Zagan, not for his bad faith, but for his bad policy, replacing him by Hamza Páshá. Hamza laid siege to Salmeniks, which was defended by a brave Greek named Graitzas. The town was taken and plundered, but the garrison held out in the citadel. Hamza offered terms, which Graitzas accepted. The garrison was to march out with arms and baggage, and was to proceed under safe conduct to the sea coast to embark for Venetian territory. Graitzas, suspicious of Turkish treachery, after the experience of Santimeri, took the precaution to send out his baggage first under a slight escort, when the Turks fell upon it and plundered it. The Greeks then shut the gates, and resolved to hold out at all hazards. For this *contre temps* Hamza Páshá was in his turn disgraced, and Zagan re-appointed; but the citadel of Salmeniks held out for a whole year longer: and Graitzas then obtained honourable terms by insisting on the Turks giving hostages for their fulfilment. The garrison marched out safely, and Graitzas afterwards held high command in the Military service of the Venetian Republic. The Sultan Muhammad paid him

a high compliment, saying : "That he had met many slaves in the Morea, and never a man but him."

The Despot Thomas had fled to the protection of the Venetian garrison in the town of Navarin ; but when the Turkish army appeared before its walls, he embarked on board ship and sailed to Italy, where he lived and died at Rome as a pensioner of the Pope. The Morea was now declared to be annexed to the Ottoman Empire. The land was portioned out into fiefs for the meritorious soldiers of the victorious army, and garrisons of Janissaries were stationed in the fortresses. Most of the seaports, however, still remained in the hands of the Venetians. As Zagan Páshá was returning by land from the Morea, he halted at Thebes, having been instructed by the Sultan to put to death the deposed Duke Franco of Athens, who was supposed to have been engaged in intrigues for the restoration of his duchy.

Zagan, therefore, sending for him, entertained him kindly all day (for they were old friends), and in the evening told him that it was his painful duty to put him to death ; and he was accordingly strangled. "Thus," says the old English Historian, Knolles, "the rich country of the Peloponnesus, and all the rest of Grecia, sometime the fountain of all learning and civility, became subject to the barbarous and cruel Turks in the year of our Lord 1460."

Sultan Muhammad soon afterwards picked a quarrel with the Venetians and assailed all their positions in Greece and in the Islands. In A. D. 1470 the Sultan made himself master of the Island of Negropont, or Eubaca, and at the end of a war, which lasted for seventeen years, the Republic had lost all the seaports of the Morea except four : Modon, Coron, Nauplia, and Malvasia. The two former were taken by Sultan Báyzid the Second in A. D. 1500, and the two latter by Sultan Sulimán the Magnificent in A. D. 1540, and not a foot of ground in Greece remained in the possession of the Christians.

The government of conquered Greece was organized by the Sultans on the Military system, which made the whole Empire an armed camp. As the Súbadárs and Faujdárs (Nawábs) under the Moghal Empire of India were primarily Military commanders, and their Civil duties were merely secondary, so in Turkey the Civil was entirely subordinate to, and was included in, the Military Administration. All Greece was part of the province of the Begler Beg of Rúm-ili, (Roman-country) under whose standard of three horse-tails all the territorial troops of the Balkan provinces were ranged in time of war : and at whose head-quarters registers of all the Sanjaks (standards) of each province and their dependent fiefs were kept.

The land of Greece was divided into six provinces, each the seat of a Sanják Beg, who had the title of Páshá, and carried two horse-tails, or one, according to the importance of his province.

The Sanjáks were Trikkala (Thessaly), Yanina (Epirus), and the Morea, under the government of the Begler Beg of Rúm-ili, and three maritime districts under the jurisdiction of the Kapitán Páshá, or High Admiral of the Ottoman fleet, whose head-quarters were at Gallipoli on the Dardanelles, and whose province comprised all the Islands of the Archipelago and many of the coast districts. The three Sanjáks of Greece in his government were Aghribuz (Eubœa or Negropont), Ainabakht (Naupactus or Lepanto), and Karli-ili (Etolia and Acarnania).

Afterwards, on account of the piracies of the Mainotes, the the districts of Misistra and Maina, in the South of the Morea, were made into a separate Sanják under the Kapitán Páshá. Nauplia and Coron also became districts of Sanják Beks with one horse-tail.

Every Sanják Beg was bound to bring into the field at least twenty well-armed horsemen: but many of them possessed revenues charged with the maintenance of several hundreds.

The second class of fiefs was the Ziámats: a Zâim was bound to maintain from four to nineteen horsemen according to the value of his Ziámat. The third class were Timárlis, who were bound to take the field alone, or with as many as three followers, according to the income of their Timár, or fief. All the fiefs, and the number of the Jebellis, or armed men, supported by each, were registered in the office of the Sanják Beg of the district. The revenue of the fief was a fixed proportion of the produce of the land assigned, which was collected from the occupier, or cultivator, by the Beg, Zâim or Timárli: the land was the property of the Sultan, or of the State; was cultivated by the Christian R'áya, and the profits were devoted to the maintenance of the Turkish soldier. The Zâims and Timárlis seldom lived on their own estates: they preferred to dwell in the towns among their Mussalman brethren, and to visit their lands twice in the year in the spring and autumn to collect their dues, and put their horses out to graze. In the summer, they were often absent on service; but they always returned home on the army going into winter quarters.

These feudal Sipáhís and their families, for the most part Asiatic Turks of Seljukian race, formed the chief part of the Mussalman population in Greece. The Janissaries, who garrisoned the castles and fortresses, were mostly themselves renegades of Greek or Slavonian nationality. They were commanded by one of their own officers with the local title of Sirdár:

and there was a Governor besides to every fort or castle with the title of Dizdár Castellán). The towns were governed by a Civil Governor, usually called the Vaivoda: and justice was administered by the Mussalman 'Ulema, the Kázi and Mufti. But this placed the Greeks and Christian Albanians in an almost intolerable position. "The Muhammadan jurisprudence," says the historian Finlay, "declares distinctly that there is a different Civil Law for the believer in Islam, and for the infidel. It pronounces that the Koran confers privileges on the true believer from which all others are excluded. The Muhammadan Law, therefore, was founded on principles of partial, not of universal, application; and it has maintained a perpetual struggle with the natural abhorrence of injustice which God has implanted in the human heart." The Turks could not help feeling the danger of treating the majority of the Sultan's subjects with systematic injustice, and they found a *modus vivendi* by committing the internal administration of the affairs of the Greek community to the officials of the Othodox Church, the "Batrik" (Patriarch), and "Mitrán" (Metropolitans), as the Turks concisely called them. After the fall of Constantinople the Sultan assumed the patronage of the Greek Church, and appointed the Patriarch: and the Orthodox Clergy became in effect officials of the Ottoman Government. The Bishops maintained the state of a Turkish Páshá, and often rivalled their abuse of their arbitrary power, asserting their spiritual authority over their flocks by a free use of the sword and the bastinado. But the Greeks submitted willingly to their petty tyranny, because it had the sanction of religion, and because it saved them from resorting to the Kázi's Court: and thus the intolerable friction which resulted from the contact of two so widely distinct races and religions was in a great degree mitigated, or, at all events, kept in the background.

Another official class of Greeks under the Turks were the clerks, accountants, and interpreters, of whom the stupid Mussalmans always stood in need in diplomatic, financial and revenue matters. Similarly in India under the Moghals, such affairs were chiefly looked after by the Hindu Káyasts, and under the Mamelukes in Egypt by the Christian Copts. The Mussalman soldier ('askari) disdained all peaceful arts as beneath his notice, and abandoned them contemptuously to the infidel Civilian (beledi). In Constantinople these Greek officials formed a numerous and influential class and were called Fanariots, from the Fanar quarter which they chiefly inhabited. They furnished all the Dragomans (Tarjumán), or interpreters to the Porte and the foreign embassies. In the provinces they were chiefly employed as clerks in the Daftar-

khána, or Record-office. The lowest class of them were the village headmen, who were responsible for the taxes and police of their villages, and who generally managed to squeeze out of the villagers something more than was squeezed out of themselves by the Páshá.

Besides the dues and tithes paid by the cultivators to the Turkish Begs and Sipáhís, there were two taxes universally levied: the poll-tax, or Kharáj, due by every Christian subject of the Sultan for permission to exist, and to breathe the air of Dárul Islám; and the land-tax, which was collected in kind, and in such a vexatious and rapacious manner as to discourage and destroy farming and agriculture, and to gradually lead to the depopulation of the country.

Though Christians were not allowed to serve in the Sultan's land forces, the dearth of sailors among the Turks made them have recourse to Greeks to man their fleet; and though the guns of the ships were always worked by Turks, Christian Greeks were admitted to the ranks of the corps of Levends or Marines. For the suppression of highway robbery and brigandage in the Greek provinces, also a local militia was kept up recruited from the Greeks and called the Armatoli. This police force was under the general direction of a Turkish officer called the "Darband Aghá," or "Lord of the Passes." The use of arms among the Greeks was confined to these Levends and Armatoli and to the Klephts, or brigands: otherwise no Christian might wear arms. The R'áyá were a weaponless herd whose only duty was submission and obedience. The penalty for a Greek raising his hand against a Turk, no matter under what provocation, was the loss of the offending member. A Greek, when riding, was obliged to dismount when he met a Turk in the road. The Greeks could only obtain redress against outrages and ill-treatment by Turks, by bribing the Turkish officials. Athens was an appanage of the Kizlár Aghá (Master of the Maids), the Chief Eunuch of the Sultan's Seraglio, himself a negro slave. He appointed the Voivoda of the town, on the sole condition of his remitting to him thirty thousand crowns annually. The Voivoda made about five or six thousand crowns over and above this amount for himself. But if the Voivoda, or any of the Military officers at Athens, the Dizdár, the Sirdár, or the Aghá of the Sipáhís, ill-used the Greek inhabitants, they could always obtain redress by complaining to their patron, the Kizlár Aghá, through their agents in the Fanar. Hence they were envied by the Greeks of other towns, who had no one to protect them against their petty local tyrants.

The upper classes of Greeks, the land-owners and merchants, were utterly ruined and destroyed by the Turkish conquest.

But, to the mass of the population, it was a relief to repose under a strong government, after the frightful anarchy of the Civil wars between the Byzantine Despots and the Frank Barons, and the constant raids of the Turks, whose horsemen plundered the villages on the plains, while their corsairs harried the coasts. The overwhelming power of the Turks made any dream of resistance impossible. And whither could they look for succour? The Western nations used the Greek heretics as badly as the Mussalmans did. The Catholic Venetians in Cyprus and Crete treated their Greek subjects so badly, that they were glad when the Turks conquered those islands.

The Greek nation settled down into a state of hopeless apathy, from which not even its bitterest misfortunes could arouse it. And it was doomed to see the ranks of its enemies and oppressors recruited continually at its own expense. As soon as Greece was annexed, a tribute of one out of every five male children was levied regularly on all the Christian families. Every four years Janissary recruiting officers visited each village, and the headman and the Parish priest had to collect and parade all the boys between the ages of six and nine years, from whom the officer selected one in five, choosing the finest and most intelligent children. The boys were then embarked for Constantinople, where they were clothed in red jackets and caps and formed into companies of *Ajam O'ghláns* (foreign boys), and trained in military exercises: when they were big and strong enough, they were drafted into the corps of *Bostánjis*, *Topjis* and *Janissaries*. They were, of course, circumcised and made into Mussalmans on their first enrolment, and were instructed carefully in the faith of Islam. The best of them were placed as pages in the seraglio. This tribute of children was levied until late in the seventeenth century, the last recorded levy being made in A. D. 1676. Its cessation appears to have been chiefly due to the ease with which Mussalman recruits were obtained from the Christian converts to Islamism: for, in the seventeenth century, a great movement took place in this direction, more particularly among the Albanian population, but also, to a considerable extent, among the Greeks. The rapid depopulation of the Empire also may have been a powerful motive for suspending the tribute with the Porte, to whom the fact was unpleasantly brought home by the continual decrease of the revenue from the *Kharáj* and the land-tax.

The depopulation of Greece was begun by the civil wars and the frequent Turkish invasions and slave-raids which preceded the conquest of the country: and, after the annexation of the Morea, Sultan Muhammad carried off a great number of families to re-people the capital and other cities wasted by him in

war. But all through the sixteenth and seventeenth centuries the numbers of the population continued to decrease, and the land to go out of cultivation, while the Sultan's administration insisted on receiving the same amount of revenue as formerly: so that a decreasing population had to bear increasing burdens. The mal-administration of the country by the Turks was no doubt the primary cause of the decrease. The people and the land were taxed to their utmost capacity: public works were entirely neglected, there were no roads nor markets, and commerce was driven away by the pirates that swarmed in the Adriatic and the Ægean.

The revenues were mostly absorbed by bribery and speculation, and the balance went to Constantinople to be squandered by the Sultan and the Vazirs. "The practice of the Sovereign receiving a present," says Finlay, "whenever he bestowed an office, gradually introduced the system of selling every office to the highest bidder," and the purchasers were expected and allowed to recoup themselves from the revenues which they collected. The whole Empire sank into a slough of corruption, from which it has never been thoroughly extricated.

The coast districts were depopulated by the ravages of corsairs. No sooner was Greece annexed to the dominions of the Crescent, than the fleets of all the Christian naval powers began to harry her shores. Venetians, Genoese, Spaniards, Florentines and Knights of Malta—all made frequent descents upon the Morea; and as the Turks dwelt generally in the fortified towns, the Greeks were the chief sufferers from their forays. When the Knights of St. John could not procure enough Moslem slaves to man the row-benches of their war-galleys, they had no scruple in filling their vacant places with heretic Greeks.

The Turkish corsairs of Barbary, on the other hand, had no hesitation in plundering the property and enslaving the persons of Christians, even should they be subjects of their Suzerain the Sultan; and they attacked and captured merchant ships under the guns of Turkish castles. There were nests of Greek corsairs also in the Archipelago, some of whom paraded in the guise of peaceful traders, and paid *Kharáj* to the *Kapitán Páshá*, while their real occupation was a clandestine piracy. Spendthrift knights of noble houses in Spain and Italy took to piracy in the Levant as a rapid way of recruiting their fortunes.

The Turkish Imperial navy was quite unable to suppress the corsairs, and had enough to do to hold its own against the Maltese, the Florentines, and other enemies.

When Sir George Wheler was travelling in Greece in A.D. 1676, he found no Turks in the town of Megara, from whence the Voivoda had been carried off shortly before by some Chris-

tian corsairs : and the people would all rush out of their houses at night if a dog barked, fearing that the corsairs were upon them. No merchant vessel could sail the seas without convoy, unless heavily armed : and as the Greeks were not allowed to arm either themselves or their vessels, they had to refrain from seaborne commerce altogether.

Yet there were some spots in Greece which, from their natural inaccessibility, or difficulty of access, always preserved a virtual independence, like the Slavonic Montenegro. The mountain of Suli, on the coast of Epirus, was one of these : the rugged Peninsulas of Maina in the South of the Morea terminating in the Capes of Malea and Matapan were another. The Mainotes were desperate pirates and robbers ; and their depredations on the Turks were carried on under the cloak of patriotism. In A.D. 1614 Khalil, the Kapitán Páshá, returning from a cruise in Sicilian waters, occupied the coast of Maina, and forced the mountaineers to submit and to pay the Kharáj. In the twenty-four years war of Candia, between the Turks and Venetians, the Mainotes gave great trouble to the former : and when Candia had at last fallen, the conqueror Ahmad Kúprili sent Kúsa 'Ali Páshá against them. He built forts on the coast, and stationed galleys in their harbours, and effectually bridled them for a time, till the expulsion of the Turks from the Morea by the Venetians again brought them upon the war-path.

For two centuries Greece was dead to the outer world, and her name and fame lived only in the remembrance of her classical lore, and in the exploits of the Christian and knightly pirates who roved round her deserted coasts. Meanwhile the empire of her Turkish conquerors was paying the penalty of a too rapid and glorious rise by a premature decay. The obstinate resistance of the European nations, the Poles, Germans and Venetians, to the further progress of the Turkish arms, had astonished and enraged the Mussalmans, whose heads were still full of the absurd dreams of 'Universal conquest,' and of the 'Conversion of the world to the faith of Islam,' which had been excited by their early and speedy success. They vented their spleen on their Christian subjects, and their increased severity may have been the cause of the great number of conversions to Islam among the Greeks and Albanians in the latter half of the seventeenth century. At the same time they became more arrogant and overbearing in their diplomatic dealings with the European Powers. They themselves had no suspicion of the decay of their power, and as Ahman Kúprili, the Grand Vázir, had succeeded by the most strenuous effort and after putting forth the whole force of the empire for many years, in wresting Crete from the Venetians, and the fortresses of Neuhausel from the Germans, and

Kaminiek from the Poles, they imagined that their career of conquest was about to be renewed, and that they should soon see the subjugation of "the seven infidel kingdoms of the Farang." The arrogance of the Porte became insufferable; but its pride was soon destined to a fall.

The Turks were still a warlike, but they were no longer a military nation; and the crushing defeats which their armies had undergone from Montecaculli and Sobieski in the field plainly showed that the power of the sword had departed from Islam.

The total defeat of the Imperial Ottoman Grand Army before the walls of Vienna in A. D. 1683 gave all the nations who had so long been bullied and insulted by the Porte, an opportunity of re-paying the score with interest. Poland had already joined her arms to those of Germany to oppose the further progress of the Turks: Russia and Venice now hastened to throw their weight into the scale. Peter the Great was anxious to capture Azoph and to open a way into the Black Sea: the Venetians were burning to avenge the treacherous attack of the Turks upon Crete and the consequent recent loss of that rich and valuable island.

The Venetian Ambassador, or Bailo (Turkish; Bálijúz), at Constantinople handed in the Declaration of War, and then escaped on board a French ship, disguised as a sailor, to escape being sent to the prison of the Seven Towers.

The Venetians lost no time in commencing operations, before the Turks could reinforce their garrisons in Dalmatia and Greece. Their own standing army was small, but they obtained aid from the Pope, from the Grand Duke of Tuscany, and from the Order of Malta, and they entered into treaty with German princes to furnish them with troops; for many of the petty princes of Germany made a trade at that time of raising and training battalions and squadrons whom they hired out to the highest bidder for their services. Early in 1684 the Venetian fleet and army mustered at Corfu, under the command of the valiant Captain-general Francisco Morosini. This veteran, who was now sixty-six years of age, had spent his whole life in active service in the Venetian fleet and fortresses and had gained special renown by his long defence of Candia against the Turks. He was now given the chief command of the expedition against the Turkish provinces in Greece, and was instructed by the Senate to undertake the conquest of the Morea, the revenues of which were expected to defray the expenses of the war.

Morosini's first object was the Island of Santa Maura, called by the Turks Ayá Maura, which had a strongly fortified port, and was a rendezvous and shelter for the Barbary pirates who infested the entrance of the Adriatic.

Bekir Aghá, the Dizdár, returned a defiant answer to Morosini's summons to surrender, but his garrison was quite inadequate to defend the port and fortress, and he surrendered after sixteen days of open trenches, on condition of being transported with his men into Greece. The Venetians then descended on Prevesa on the coast of Albania, and easily made themselves masters of that town also ; and then they plundered the coasts of Acarnania.

The Turks had no forces to oppose them, for all their troops had gone off to the Danube to save Hungary from the Germans. One squadron of the Venetian fleet sailed for the Levant and plundered the Isles of the Archipelago.

Next year Morosini waited for the promised German reinforcement to commence operations. Three Hanoverian regiments, having marched through Germany in the winter, reached Venice in April, and arrived at the camp of Morosini at Dragomestre, in Acarnania, in June.

The whole fleet and army destined for the invasion of the Morea was now assembled. The Venetian fleet mustered five galliasses, thirty-seven galleys, twelve galliots or half-gallies, twelve ships of the line, and twenty-two transports : five Papal and eight Maltese galleys formed a separate squadron.

The land forces were four thousand soldiers of the Republic, of whom three thousand were Italians, and one thousand Slavonians : one thousand Maltese, led by one hundred knights clad in crimson satin surcoats, bearing the white eight-pointed Cross of St. John over their armour : the Pope furnished a contingent of four hundred men, and the Grand Duke of Tuscany three hundred more ; and the two thousand five hundred Hanoverians made up the total to more than eight thousand men. Prince Maximilian William, of Hanover, and Prince Philip of Savoy, served with the expedition. The chiefs of Maina had opened communications with Morosini, asking him to invade their country, and promising him assistance ; and he accordingly sailed to the South coast of the Morea, landed near Coron, and opened the trenches before that fortress on the 25th day of June 1685.

The Turks were not at all prepared to meet the invasion. Their best troops were all employed against the Germans and Poles on the Danube : those which remained in Greece were disorganized and badly equipped, and their commanders were utterly inefficient. The practice of making all appointments to Military and Naval command a matter of favour or jobbery, when the offices were not actually sold to the highest bidder, had produced its natural results. The Turks defended their system by saying : " When God gives an employment He bestows the qualities it requires ;" and they sought to saddle

Providence (Kazá) with the responsibility of the misfortunes which were due to the incapacity of their leaders. Khalil Páshá, of Ainabakht (Lepanto), crossed the Gulf into the Morea with his forces and joined Mustafá, the Páshá of the Morea, and they approached Coron to try and raise the siege. The Venetians had fortified an eminence near their camp, and this the Turks stormed and took. As their possession of it would have rendered the camp untenable, the Christians immediately assailed it to recover it. The Knights of Malta led the forlorn hope, and their Grand Master was killed at their head; the work was re-taken, and the Turks were chased back to their camp. As they continued to annoy the besiegers, and to interrupt their work, Morosini drew out the army and made a general attack on the Turkish camp. The Turks were put completely to the rout, and their camp with all their guns and stores taken. The garrison, seeing no hope of relief, offered to capitulate on terms, but while the negotiations were proceeding, an accident brought on a scuffle, the Turks flew to their arms, and the Christians stormed the town; and, after a desperate struggle, all the Mussalmans were put to the sword, even women and children, and the town was plundered by the victorious soldiery.

Morosini next carried his army across the Gulf of Coron into Maina: the Turkish forts on the coast were reduced, and the wild mountaineers joined the invaders, who laid siege to the town of Kalamata at the head of the Gulf.

The Kapitán Páshá Mustafá, whose only qualification for his post was that he had been a Musáhib of the Sultan Muhammad the Fourth, had landed a large force to oppose the Venetians, and had taken up a strong position near Kalamata.

At this time the Saxon contingent arrived, three thousand strong, under General Degenfeld. By Morosini's orders he led the army to attack the Kapitán Páshá in his strong position, and again the Turks were completely beaten. Kalamata was then abandoned by the Turkish garrison. Morosini put garrisons into the captured towns and castles and placed them in a state of defence; and put his army into winter quarters in the Islands of Corfu, Zante and Santa Maura.

Ismáil Páshá, of Salonica, was now appointed Saraskier, or General, of the Ottoman forces in the Morea, and he collected all the available force of the Turks in Greece to oppose the further progress of the enemy. In the spring he took the field and invaded the district of Maina; but when the Venetian fleet arrived on the coast, he retired. Otho von Königsmark, a general in the Swedish army, now arrived to take command of the Venetian land forces under the orders of Morosini. Fresh

troops had arrived from Germany, and Königsmark opened the campaign with eleven thousand men.

The army was landed at Navarin, and laid siege to that town. The Saraskier approached to relieve it, but when Königsmark offered battle, he refused it. Jáfar Páshá, the Governor, signed a capitulation, but that same night the powder magazine of the citadel blew up, and the Páshá, and a hundred and fifty Turks were killed, among whom were all the officers of the garrison. It was said that these officers had compelled Jáfar to capitulate against his will, and he assembled them together on some pretext, and, to revenge himself on them and retrieve his honour, threw fire in the magazine.

The survivors threw open the gates, and the Venetian transports carried them to Tripoli, in Africa. The army then laid siege to Modon. The place was well victualled and furnished for a siege, and the ramparts mounted one hundred guns, and held a garrison of one thousand men : but it made only a feeble resistance. The Turks hung out a white flag, and while a parley was going on, the Captain-general Morosini, visited the advanced trenches with a train of magnificently dressed Venetian nobles. The Turks suddenly, by accident, or misunderstanding, opened fire again ; and all the splendidly-dressed noblemen ran to hide themselves under cover, leaving Morosini standing alone. The Germans, who generally sneered at the Italians as cowards, were delighted with the cool courage of the old Venetian chief. Modon capitulated soon afterwards, and the garrison and the Mussalman inhabitants, four thousand in number, were conveyed by the Venetian transports to Tripoli. The Venetian army was embarked for Nauplia to besiege that place, which was the strongest fortress of the Turks in the Morea. The Venetians occupied the Hill Palamidi, which commanded the town, and commenced to construct batteries, but their operations were impeded by the attacks of the Saraskier, who had taken post at Argos with four thousand cavalry and three thousand infantry. Königsmark marched against him, and as the Germans had no horses with them, they employed Greek peasants to draw their guns. After a sharp fight, the Saraskier was beaten from his position, and fell back on Corinth. The Venetian batteries opened fire, and the town was soon in flames, but the garrison held out bravely. The plague broke out in the Christian camp : the German troops were always very sickly from the unaccustomed heat of the climate, and now they had half their number on the sick-list. The Saraskier, hearing of the weakness of the Christian army, and also that Nauplia could not hold out much longer, advanced from Corinth and made a desperate attack on the besiegers' lines, and had nearly forced them, when Morosini landed every avail-

able man from the fleet, and attacked the Turks in flank. After a furious contest, the skill of Königsmark and the steadiness of the German infantry gained the day, and the Saraskier was totally defeated, and again fled to Corinth. Nauplia capitulated, and the garrison of twelve hundred Turkish soldiers, with six thousand Mussalman inhabitants of all ages and sexes, were transported in the Venetian ships to Asia Minor. The season being too late for further operations, the troops were distributed in winter quarters.

All the coast towns of the Morea had now fallen into the hands of the Venetians, except Patras and Malvasia. Suspecting that Patras would be the next object of attack, the Saraskier formed an intrenched camp near it, which he occupied with all the troops he could collect: ten thousand men. The time stipulated for the service of the Saxon contingent having expired, it had returned home after the last campaign, and the Republic had hired troops from Hesse and Wurtemberg to replace it; what with the late arrival of these reinforcements, and the ravages of the plague, and the difficulty of assembling the scattered troops, July in the year 1687 had come before Morosini landed the army to the west of Patras, while the fleet passed through the Straits of Lepanto in the night, to avoid the guns of the Turkish castles which commanded the narrow passage. Königsmark marched his army round the Saraskier's position, assailed it from the rear, and carried it after an obstinate fight. The Turks were totally defeated and fled in the wildest confusion, the garrisons of Patras and Corinth evacuating the towns and joining in the flight, and the whole passed the Isthmus of Corinth, abandoning the Morea to the enemy. The Venetian fleet meanwhile bore down on Lepanto, a populous and strongly fortified town, and the head-quarters of a Páshalik: and the Turks, on seeing the ships open fire, abandoned the town in a panic.

All the Turks in the Morea now began to fly the country. Those whose retreat was cut off at the Isthmus by the Venetians, tried to make their way to Malvasia, or Menuche as they called it, the only fortress in the Peninsula that still hoisted the flag of the Crescent. Some took refuge in Misitra, but that town was soon captured by the Venetians. Directly the Turks began to fly, the Greeks rose upon them, and waylaid and murdered every Musalman—man, woman, and child,—whom they could surprise or capture. The Turks, on their part, carried off all the Greeks whom they could lay hands on, as slaves, and murdered all whom they could not carry away; and they set fire to every Greek village on their line of march, and carried off all the portable property, to indemnify themselves for what they were obliged to leave behind. Mustafá Páshá of the

Morea, with some of the refugees, joined Ismáil Páshá, at Istífa (Thebes); others of the refugees went to Aghribúz (Negropont), others to Istína (Athens).

The Venetian army marched to Corinth, and Morosini began restoring the rampart-wall of the Hexamilon across the Isthmus to prevent the return of the Turks. One thousand men were stationed to guard it, and the rest of the army embarked and sailed round the Morea to attack Athens. On the 21st of September the fleet entered the harbour of the Piræus, and Königsmark landed the whole army, nine thousand foot and one thousand horse, and encamped in the olive groves of sacred Eleusis. Next day the town of Athens was occupied, without fighting, the Turks retiring to the Acropolis. The magnificent Grecian temples, which had so long withstood the ravages of time, were now used as store-houses and powder magazines by the 'Osmánli garrison. The Venetians battered and bombarded the Acropolis. On the 25th of September a well-directed shell fell into the Propylæa, and exploded a powder magazine.

Next day another shell fell into the Parthenon and a terrific explosion followed. The huge columns and massive blocks of the magnificent temple were overturned and tumbled into irretrievable ruin, and the statues shattered to atoms. Two hundred Turks perished in the explosion, and the conflagration that followed destroyed all their stores. The Saraskier came down into the plain from Thebes to attempt to relieve the place, but he feared to attack the Venetian army; and the Turkish garrison capitulated, on condition of being allowed to embark for Smyrna in vessels hired at their own expense. Five hundred Turkish soldiers, and two thousand non-combatants accordingly embarked in French, English, and Ragusan vessels, but their Negro slaves were detained by the Venetians and divided as booty among the troops. About thirty Mussalmans turned Christian and took service with the conquerors: they were probably Greeks who had been renegades to Islam.

There was great rejoicing at Venice over the conquest of the Morea, and honours, titles, decorations, and money rewards were liberally showered on Morosini and Königsmark, and on the superior officers of the land and sea forces. The four successful campaigns, in which the slender forces of the little Republic had expelled the Turks from the Morea, present a curious intermingling of ancient and modern warfare. The Knights of Malta with their steel panoply and cross-handled swords, the German grenadiers with bayonets and hand grenades, and the Slavonian soldiers of Venice with semi-Oriental dress and armament made up a most heterogeneous array: and their tactics, armament, and mode of fighting were as various

as their dress and languages. The Turks, deprived of their usual advantage of numbers, did not at all sustain their ancient reputation in this war: but their veteran troops were all employed against the Germans on the Danube, and their army in the Morea consisted for the most part of hasty levies and volunteers, who now met regular troops for the first time. Their wild rushes and sharp scimitars were foiled by the steady volleys and serried bayonets of the German battalions; and the red uniform of the Hanoverian regiments is said to have been greatly feared in battle by the Turks. It had a drawback in the eyes of its wearers, though, as it prevented the soldiers, when foraging, from catching the buffaloes which were numerous in the Morea, and which were employed to drag the Turkish artillery.

The Venetian career of conquest now, however, came to a sudden termination. The defeats and losses of the Turks had thoroughly alarmed the Mussalmans, and had rudely dispelled their dreams of 'Universal conquest,' and almost shaken their trust in the 'aid of Allah.' In this crisis of their fortunes, as often happens, brave and energetic men made their way to the front, and Mustafá Kúprili, Misrli Oghli, and Mezzomorto, the Algerine, infused their own spirit into the armies and fleets of the 'Osmánlis. The plague made fearful ravages in the Morea and in the Venetian army encamped at Athens: and the troops were unable to stir beyond the limits of the camp and city on account of the proximity of the Saraskier at Thebes. His cavalry were well mounted, bold and active; and parties of them continually scoured all Attica and kept the Christian outposts in a constant state of alarm. Morosini and Königsmark, therefore, resolved to evacuate Athens, and to concentrate all their forces for an attack upon the city of Nigropont, which was the great stronghold of the Turks in those parts, and was considered the key of Greece.

The city was garrisoned by six thousand Turks, and was united by a bridge-of-boats to the mainland, where was the strongly fortified *tête-du-pont* of Kará-bábá, near which the Saraskier lay with his army,

The city itself was well fortified, and, on the land side, it was defended by an entrenched camp upon an eminence, occupied by four thousand five hundred Janissaries. The Venetian commanders evacuated Athens, transporting the Greek population to the Morea. They then sailed for Eubœa with an army of thirteen thousand men, conveyed by a fleet of which the mariners and sailors amounted to about ten thousand more. Königsmark wished to drive off the Saraskier and to capture the bridge, but Morosini over-ruled him and preferred to land in the Island and attack the entrenched camp which defended

the town on that side. He proposed to storm it at once, but Königsmark objected that it would cost the lives of too many soldiers, and he proceeded against it by regular approaches. The Venetian army landed on the Island in July 1688.

A month was consumed in the attack on the entrenched camp, and, in a succession of bloody skirmishes in the trenches, more lives were lost than in the final assault, when the camp was carried by storm, on the 30th August. Approaches were now pushed forward against the city walls, but unfortunately the situation of the besiegers' camp was unhealthy and their army was infected by malarial fever. Count Königsmark himself died of it, and nearly half the army was *hors de combat*. Meanwhile the communications were open between the town and the camp of the Saraskier: supplies and reinforcements were poured in, and the sick and wounded withdrawn. The Venetian fleet could not succeed in interrupting the communications. Ibráhim Páshá, of Negropont, proved himself a brave and vigilant commander. Morosini was himself seriously ill, but he determined to make a final effort for victory. After drawing all the available men from the fleet, he could only muster eight thousand men for a general assault. It was repulsed with a loss of one thousand men.

Nothing remained but to embark the surviving troops and return to winter quarters in the Morea.

Morosini complained that the German officers had not seconded him in the assault: in fact, they knew that success was hopeless, and that the lives of their men were squandered in vain. There was always bad blood between the Venetians and their German mercenaries: and the latter complained constantly of the quality of the provisions and accommodation furnished to them by the Republic, and of being denied a fair share of the plunder. The term of service of most of them had now expired, and they quitted the Morea in the winter of 1688, having served through five campaigns. Their departure crippled the Venetian army, and Morosini was unable to undertake any fresh campaign in 1689. He had meanwhile been elected Doge of Venice, but, before leaving the Morea, he tried to capture the fortress of Malvasia, which still hoisted the banner of the Crescent. This almost impregnable island fortress served as a refuge to two thousand souls—the last remnant of the Mussalman population of the Morea, which was reckoned at fifty thousand at the beginning of the war five years before. The garrison consisted of seven hundred Turks under Mustafá Aghá, the Dizdár, and Hasan Aghá, the Voivoda. Morosini assailed Malvasia by sea and by land with all his forces, but without success; and he was obliged to turn the siege into a blockade, after which he returned to Venice, leaving Girolamo

Cornaro as Captain-general of the Venetian forces in the Morea. In 1690 the Turks in Malvasia were driven to capitulate by famine, having been closely blockaded for sixteen months. Their numbers were reduced from two thousand seven hundred to twelve hundred souls by want, disease, and the shot and shell of the besiegers.

The Venetian garrisons of Corinth and Lepanto made constant incursions into Continental Greece, and, the Turks being all drawn away from the country districts to serve in the armies, the whole country was in a horrible state of anarchy. Armed bands of Albanians ravaged the country alternately in the Mussalman and in the Christian interest: and the Slavonic soldiers in the service of Venice deserted in whole troops from want of pay, and escaped into Continental Greece, as a happy hunting-ground where they might live at free quarters on the country. The Turks liberated a Mainote chief, named Liberaki, who was imprisoned for piracy at Constantinople, and commissioned him to raise the Greeks against the Venetians, and he gathered a few hundred ruffians round him, and infested the country north of the Isthmus. He eventually went over to the side of the Venetians. In 1690 reinforcements reached the Turkish army at Thebes, and the Saraskier took the field, and cleared all the country north of the Isthmus of the brigands and deserters who had overrun it, but he failed in an attempt to re-capture Lepanto. The same year, two Venetian line of battle-ships, which were collecting the tribute from the Greek islands (which had generally to pay double taxes, both to the Sultan and to the Venetians), were attacked by Mezzomorto with ten Barbary corsairs; one Venetian ship was blown up, and the other was sunk.

The war after this was mostly naval, and though it lasted for nine years longer, but few operations of importance were undertaken on either side. The treasury of Venice was exhausted: and the expected revenues of the Morea were not realized, for the country had been quite depopulated by the war and by the plague. At the commencement of the war the population was estimated at fifty thousand Mussalmans and two hundred and fifty thousand Christians (Greeks and Albanians): at the end of the war it had fallen to one hundred thousand Christians. The Venetians could not afford to hire German mercenaries any longer, and it was all their fleet could do to keep the sea against the Turkish Admiral Mezzomorto.

In 1692 the Venetians landed an army in Candia and laid siege to Canea, but after a month of open trenches they abandoned the enterprise and re-embarked. The brave old Doge Morosini, now seventy-five years old, returned to the Morea in 1693 to re-assume the command; but before he could

accomplish anything, he died at Nauplia, on the 16th of January 1694.

His successor, the Captain-general Zeno, directed the armament he had fitted out against Chios, a rich and valuable island but too near the coast of Asia Minor to be easily maintained against the superior numbers of the Turks. The island was taken without difficulty, but it was impossible to retain it. The Turks poured an overwhelming force into it, Mezzomorto commanding their fleet, and Misrli Oghli their land army. Zeno abandoned the island, and was imprisoned for misconduct, when he returned to Venice; and the unfortunate Christians of Chios expiated his rash enterprise by their sufferings.

The Porte, elated by their success, ordered Khalil Páshá, who was now Saraskier in Greece, to re-conquer the Morea. As he evaded complying with the order on various pretexts, he was removed, and Ibráhim Páshá of Negropont, was appointed to his post. Ibráhim mustered his army at Thebes, passed the lines at the Isthmus of Corinth, which were undefended, and entered the Morea. General Steinan, who commanded a corps of German mercenaries, advanced from Nauplia against the Páshá, attacked and defeated him, and drove him back across the Isthmus. Mezzomorto, who was now Kapitán Páshá, had sailed from the Dardanelles to aid the invasion, but when he arrived off the coast of Greece, Ibráhim Páshá was already in full retreat. Two indecisive battles were fought between the Turkish and Venetian fleets.

The war languished in Greece for two or three years more, but the great victory of Prince Eugene over the Sultan Mustafá the Second at Zenta on the Theiss completely broke the spirit of the Turks and destroyed all their hopes of recovering their losses. At the peace of Carlowitz, concluded in January 1699, they resigned Hungary to the Germans, Kaminiek to the Poles, Azoph to the Russians, and Dalmatia and the Morea to the Venetians. The Mussalmans saw themselves with grief and rage compelled to give up lands that had been Dárul Islám, in which mosques had been built and the Azán heard, into the hands of the Giaurs. But this calamity was so evidently opposed to the will of the Almighty, that they flattered themselves that it was but a temporary punishment for their sins, and that when these were expiated, they would again become the especial favourites of Providence. Na'man Kúprili, the Vazir-i-'Azam, shut up the wine-taverns and promulgated edicts against sorcery as steps to this desirable end. Every Turkish statesman thought only of how to wipe out the disgrace, and repair the loss of Islám.

Meanwhile in the Morea the mosques were turned into Greek and Catholic chapels; one was even made into a

Protestant church for the use of the Lutheran soldiers from Germany. The lands of the exiled Mussalmans were occupied by the Greeks as masters. A civil administration was established on a Venetian model. Trade and agriculture revived; and the wine of Malvasia, the Malmsey wine of the Middle Ages, again became famous in the markets of Europe. So successful were the Venetians in their endeavours to restore prosperity to the country that, a few years after the peace, the population had again risen to two hundred thousand. Flocks of Greek emigrants came into the country from Northern Greece, in which the Turks were much slower in restoring order and tranquillity. Finding their subjects, on whose industry they lived, deserting them, the Turks became alarmed, and in their own interests commenced to treat the Greeks with greater justice and moderation. The Páshás and Begs now had to bid against the Venetian Signors for the good will of their Greek subjects. In the Morea thirteen hundred families, who had embraced Islám, now reverted to their Christian faith. The Venetians renounced their former illiberal policy of persecuting the Greek Church, and allowed it full toleration: still they do not appear to have earned the gratitude or affection of their Greek subjects.

During the whole of the year A. D. 1714, the Turks were observed to be making great naval and military preparations, ostensibly directed against Malta. The Grand Master of the Order, therefore, recalled all the Knights absent from the island, and also provisioned Valetta for a long siege. The Venetians, trusting to the co-signatories of the Treaty of Carlowitz, took no steps to increase their small army, or to put their fortresses in a state of defence. The policy of the Porte was at this time directed by the Grand Vazir 'Ali, nick-named Kumúrji (charcoal-burner), a handsome and spirited youth, who had married a daughter of the Sultan Ahmad the Third, and had lately, in spite of his extreme youth, been raised to the highest dignity of the Empire. He was the son of a charcoal-burner in Anatolia; the Sultan was one day hunting in the wood near his hut, saw the child, and, struck by his beauty, begged him of his father, and made him a page in the Sarái. He became Siláhdár A'ghá, or armour-bearer, to Sultan Ahmad, and eventually his son-in-law and Vazir. He was a young man of great ambition and energy, proud and ignorant as most of his countrymen. He cordially hated all "Giaurs;" and it was his fixed purpose to immortalize his name as a true believer by recovering from their hands the territories of which they had despoiled the Mussalmans at the peace of Carlowitz. He vowed that he would re-conquer Hungary from the Namsa (Germans), and the Morea from the infidels of Venedik (Venice).

In December 1714 the Porte suddenly declared war, on the pretence of some piracies committed by Venetian subjects, and, on the 11th January, 1715, the horse-tails were planted before the Imperial Sarái in Istambol. The orders for mobilization were issued, and after the Suras of victory and conquest had been publicly read, the Sultan and Vazir left for Adrianople. Here the forces were mustered under the command of Sári Ahmad Páshá (Ahmad the Yellow), Begler Beg of Rum-il, and Turk Ahmad Pásha Begler Beg of Anadoli. From thence the army marched to Salonica, where the horses of the cavalry were put to graze, according to the invariable Turkish custom. Here the fleet arrived from the Dardanelles, under the command of the Kapitán Páshá Jánam Khojah. The Egyptian squadron arrived here from Alexandria with a contingent of troops on board. The fleet was despatched to capture the island of Tino on its way to the coast of the Morea, and the army marched for Thebes. Here the Grand Vazir reviewed the whole army: the Present States shewed more than twenty thousand cavalry and seventy thousand infantry; but as Turkish military returns were not famous for accuracy, probably one-fourth might be deducted from these numbers.

The Sultan took a Fál, or omen, from the book entitled 'Masharik-ul-Anwár-au-Naburjیات' (Glimpses of the Lights of Prophecy); and this passage turned up: "Thou shalt conquer a country in which the Koran is read; treat well its inhabitants, for they will become thy devoted servants." Dámád Ali (son-in-law Ali, as the Turks generally called the Grand Vazir,) took his Fál from the Diwan of Hafiz, and lighted on a passage to the effect "that Heaven assists the pomp and parade of the Shah. The stars had also foretold to him, for he was a diligent student of astrology, the conquest of the Morea. The Sultan remained at Thebes, and the favourite led the army forth to Corinth. Before it marched, the joyful news arrived of the capture of Tino by the Ottoman fleet. That island had remained in the hands of Veince all through the long series of her wars with the 'Osmánlis; but now the Greek population had clamoured so violently for a surrender, that the Venetian Governor yielded up the town and island without striking a blow.

The Venetians had only eight thousand men in the Morea, and these troops of an inferior quality. They therefore abandoned all their forts except four, Modon, Nauplia, Malvasia and the castle of the Morea, situated on the Straits of Lepanto. They provisioned and garrisoned these, and the Captain-general Delfino cruised off the Morea with the Venetian fleet. The Signoria applied to the Emperor of Germany for protection against the infraction of the Treaty of Carlowitz, but his assis-

tance came too late to save the Morea. Dámád Ali opened the campaign by laying siege to Corinth (Turkish : Kordos), and this siege has been immortalized by Byron in poetry. The events of the siege were very different, however, really, from those which he has represented with much poetic licence. The Governor, Signor Minoto (Byron's Minotti), did not blow himself up, along with his assailants and the surviving defenders, but was made prisoner by the Turks; and the explosion was accidental, not intentional. The Venetian garrison was only four hundred strong, besides two hundred Greek militia; and the Greek inhabitants were clamorous for surrender, fearing the horrors of a sack. The Turks opened batteries, and were preparing to storm, when the Governor hung out a flag of truce; and a capitulation was agreed upon by which the place was to be given up, and the Venetian garrison was to be transported to Corfu. But when this was made known to the Turkish army, the troops were enraged at being deprived of their expected booty; and early next morning, the garrison, relying on the truce, having left the ramparts unguarded, some Janissaries escalated them, and commenced plundering the town. This caused a tumult, and, in the midst of it, a powder magazine in the citadel blew up. The cause of the explosion was never known, but it was the signal for a general attack on the garrison by the Jannissaries: in spite of the efforts of the Grand Vazir and the Páshás to restore order, the town was sacked by the mutinous troops, and all the garrison and the inhabitants made slaves. The Grand Vazir did not dare to take away the spoil and captives from the soldiers: however, he rescued all the Venetians he could, by taking them by force from the persons to whom the soldiers had sold them, but the unfortunate Greek citizens were hopelessly enslaved.

As he could not display his power over the mutinous Janissaries, he was resolved to make some one at least feel it, so pitched upon Sulimán Páshá, of Seleoke (Seleucia in Asia Minor), who had been late in bringing his contingent to the general rendezvous, and ordered him to be beheaded. The Páshá in vain begged that he might have the indulgence of being strangled privately in his own tent: the inexorable Vazir caused him to be executed in front of the whole army.

Kará Mustafá, the Páshá of Diyárbekr, was detached to attack the castle of the Morea, at the entrance to the Gulf of Lepanto; and the grand army moved on to attack Nauplia, the Venetian capital of the Morea. The town was strongly fortified; and the Hill of Palamidi, which commanded it, was defended by a triple series of works, the third and last of which crowned its summit, and looked down into the town. There were two thousand regular troops in the garrison, besides Greek Militia.

Dámád Ali divided his army, appointing Sári Ahmad, with the troops of Europe, to attack the Palamidi fortress, and Turk Ahmad, with the Asiatic soldiery, to assail the town itself.

The Janissaries were divided between the two, the Janissary Aghá, with half of their regiments, serving under Sári Ahmad, and the Sagban Báshi, or senior Major-General of their corps, commanding the rest of them with Turk Ahmad Páshá. Sári Ahmad had hardly broken ground before the outer and lower defences of the Palamidi when the Janissaries made a sudden and daring attempt to carry the rampart by a *coup de main*. They were repulsed with frightful slaughter, but they managed to effect a lodgment in the covered way, and held it so tenaciously, that the utmost efforts of the garrison failed to drive them out. From thence the Turkish engineers carried a mine under the rampart, and six days later they sprung it with good effect, when the Janissaries, mounting to the assault over the ruined wall, carried the work by storm. A panic seized the Venetians, and as they fled in terror, the Janissaries following on their heels, successively entered the second and third lines of defence along with the fugitives; and not stopping there, rushed down the palisaded way that led from the hill into Nauplia, intermingled with the flying troops, and entered the city along with them. The Janissaries in Turk Ahmad's trenches, hearing the uproar, and seeing one of their own standards in the town, rushed tumultuously to scale the walls. The Venetian Governor, seeing the Palamidi taken and the Turks already in the town, hung out a white flag; but it was too late; and an indiscriminate pillage and massacre took place, twenty-five thousand inhabitants, mostly Greeks, being killed or made slaves. One thousand Italian soldiers were made prisoners: Dámád Ali purchased them from their captors, and then had them beheaded in batches before his tent. Eight thousand sequins were found in the treasury, and the booty taken enriched the whole army.

No one was more astonished at the sudden fall of the place than Sári Ahmad Páshá, who had made every preparation for a long and arduous siege. The fall of the place was due entirely to the rash valour of the Janissaries, and the cowardice of the Venetians: the Grand Vazir did not himself know that the town was taken till it had been half pillaged by his soldiers.

The Turkish Grand Army marched from Nauplia across the Morea to besiege Modon. They found the country teeming with supplies, the granaries full, and the pastures stocked with cattle. Everywhere the Greeks gave in their submission, and even welcomed the Turks; the Grand Vazir enforced strict discipline in the army, and suffered no marauding or plundering.

The Greek militia, who had been armed to withstand the

Turks, [did not strike one blow in defence of their Venetian masters. Navarin and Coron were abandoned, and their garrisons drawn into Modon; and the Turks sat down before the latter fortress. Their fleet under the Jánam Khojah arrived to aid in the siege: the Venetian fleet under the Captain-general Delfino was in the offing, but would not risk an engagement to relieve the town: and the garrison, seeing the place abandoned to its fate, offered to capitulate. The story of Corinth was again repeated here: the Janissaries, under cloak of a truce, forced an entrance into the town, and commenced plundering it. Pasta, the Venetian Governor, and most of the Italians in the place fled on board the vessels in the harbour and surrendered to the Kapitán Páshá. Jánam Khojah had been made a prisoner of war when the Venetians conquered the Morea, and had tugged at the oar as a galley slave at Venice for seven years: and Signor Pasta had then treated him kindly: and the grateful Turk now nobly repaid the obligation, protecting the Governor and his companions. The Grand Vazir refused to pay the usual head-money to the troops for the heads they brought him, on the score that the place had capitulated, and therefore the law of the Prophet forbade the massacre of the inhabitants; but he took care to make his Ki'áyá (Ketkhudá) bear the odium of the refusal.

From Modon the Grand Vazir marched against Malvasia, which was now the last stronghold in the Morea that hoisted the banner of the Winged Lion of St. Mark, which the Turks and Greeks called "To aio skuli," or "The holy dog."

This impregnable insular rock was well garrisoned, and provisioned for two years; but it surrendered at the mere terror of the Turk's approach.

The strong castle of the Morea had already capitulated to Kará Mustáfá Páshá after a siege of only three days. The six hundred Venetian soldiers of the garrison were allowed to go free, but the Greeks and Slavonians were made slaves. Thus the Morea, which it had taken the Venetians four years to conquer, was reconquered by the Turks in a single campaign.

(To be continued.)

ART. III.—SIRSA AND SIRSA FOLK.*

SETTLEMENT work is scarcely a theme that would be likely to incite English poets to a fine frenzy, but it has availed to inspire two or three bards in the Punjab. The refrain of every stanza in one long poem is *Bedakhilī Karnī nahin darkār*—translated by a settlement officer—ejectment is not right. As Sir Charles Napier wrote at the conclusion of one of his Scinde proclamations: "The enforcement of obedience is, like physic, not agreeable, but at times very necessary." Here is a verse from another poem:—

Viswe vade beimán	Proprietary rights are very faithless things,
Magra karde vāng Shaitan	Make people wicked like Satan,
Bande dá chá karde ján	Do injury to people.
Sábit rahan ná dín ímán	Good faith does not last ;
Viswáen bande kai ranjáne	Proprietary rights have made many people unhappy ;
Sabit rahsan kai thikáne.	Some landmarks will remain.

Another bard, a Mahomedan, is pathetic. Thus:—

Aglán nun kí ákhná tu hun dí bát naber,	Why speak of former kings, speak of the present day,
Tú raiyat jis bádshah di usdá qissa chher,	Tell of the king whose subject you are,
Hai jāt nisára usdí kardá bare firang	His caste is Christian. he does great and wise deeds,
London usdá watn hai gore rang o rang,	His native place is London, his colour white,
Us jihá ná koi hikmati na kisi akl shahúr,	No one is so clever as he, no one so wise,
Sakhí bhí hai voh hath—dá Isa os rasúl,	He is generous of hand, Jesus is his Prophet,
Usnu Allah pákne ditta mulk pachhán,	God has given him the country.
Qabza andar usde Dilli Hindustán,	Delhi and Hindustan are in his grasp,
Haule haule usdá qabza paiya Lahor,	Gradually Lahore came into his possession.
Malika Shájahán di Londón de vich zor,	The power of the glorious Queen is in London.
Sompdittá ik Lát nu Malika Shah-jahán	The glorious Queen deputed a Governor
Karan adálat wáste, kitá eh farman,	To do justice, and gave this order.
Adálat vich Angrez dí hargiz nahín qusúr,	(There is no failure in the justice of the English)
Hukm hoyá Chief Court dá motim úpar ján,	The Chief Court issued an order to the Settlement Officer,
Bandobast dá mahkima jaldi karo rawán.	'Quickly commence a Settlement.'

* Final Report of Revised Settlement, Sirsa District, 1879-83. By J. Wilson, Esq.

The settlement may have been quickly commenced, but it has taken a dozen years to get secretariat approval and imprimatur for it; and meanwhile the Sirsa district, about which the Report was written, has been abolished. In November 1884, the tract of country that composed it, was partitioned between the neighbouring districts of Hissar and Ferozpur by a boundary line drawn across its narrowest part at Dabwáli.

Its tardy appearance notwithstanding, the Report contains much matter that is of more than local interest, and is independent of the acre, rood and perch details of a lapsed settlement. Especially valuable is Chapter II, dealing with "The people," in which a great deal of curious, recondite information is given about tribes, clans, caste shibboleths, subdivisions of caste, &c., and their endogamies and exogamies.

We must preface our commentary on this chapter (and others) by mentioning that all statistical information which we may touch upon will have been derived from the figures of the 1881 census. In 1881, the Játis were estimated at almost exactly one-fourth of the whole population of the district: Játis and the allied tribe of Rájputs together accounted for about 44 per cent. of it, and between them owned about three-fourths of its area. We are told that, in the case of the Hindús, the distinction between the Játis and the Rájputs is, in this part of the country, clearly defined, the most marked difference between them being that the Játis allow the re-marriage of widows while the Rájputs do not; but among the Musalmáns there is no such clear distinction; many Musalmán tribes are called Jats in one part of the province, and Rájputs in another, and in this district there are several such tribes which claim to be Rájputs,—a claim allowed by some of their neighbours, and denied by others who call them Jats. There seems reason to believe that the great mass of the Játis and Rájputs belong to one great Aryan race, and that, instead of the Játis being, as they commonly say, Rájputs who fell from their high estate by permitting the remarriage of widows, the Rájputs themselves are simply the aristocracy or nobility of the Játis,—descendants of families who attained power and gradually separated themselves from their fellows: literally "sons of the kings" of the Játis, and of the same race and blood as the Játis themselves. And if physique, language, custom, religion and tradition are any evidence of origin, the great mass of the Rájputs and Játis are of as purely Aryan and Hindu origin as the Bráhmíns themselves.

There are, however, broad distinctions between the different sections of this race, which divided them into a number of practically distinct peoples. It is not that the Rájputs are clearly marked off from the Játis, for the Hindú Rájputs

resemble the Bágrí Jâts much more closely than they do the Musalmán Rájputs from the west ; and, as already said, the latter are hardly to be distinguished from the Musalmán Jats with whom they immigrated. Whatever doubt there may be as to the identity of origin of the Rájputs and Jâts, it seems certain that, as the people themselves admit, all Jats and Jâts, from whatever quarter, belong, with perhaps a few exceptions, to one great race. In this district the chief grounds of distinction between the different sections of the race are religion, language, and place of origin. In the census of 1881, of the 64,040 Jats or Jâts, 38,320, or more than half were returned as Hindús, 21,855 or about one-third as Sikhs, and 2,798 as Musalmáns. The Sikhs and Musalmáns call themselves Jat, speak Panjábí, have all come in recent times from the north and west, and live chiefly along the north-east border of the district ; while the Hindús call themselves Ját, speak Hindi, have all come in recent times from the south and east, and live chiefly along the south-west border of the district. Sikh and Musalmán Jâts are taller men than their Hindu fellow clansmen, and more independent and self-assertive. Both of the former admit that they are, in many instances, descended from the same ancestors, but have adopted different religions either from choice or on compulsion.

In his part of the country, like most investigating Anglo-Indian minds in theirs, Mr. Wilson has found it difficult to make out exactly what are, and are not, the religious beliefs of the ordinary Hindu peasant. His exceptional opportunities have enabled him to say of the Sirsa peasant professing Hinduism :—

He has practically no belief in the transmigration of souls, but has a vague idea that there is a future life, in which those who are good in this world will be happy in a heaven (*surg*) while those who are bad will be wretched in a hell (*narak*). His devotional offerings to demons, saints and godlings are meant rather to avert temporal evils or secure temporal blessings, than to improve his prospects of the life to come. He has an idea that sin (*páp*) will bring evil on him and his fellows in this life as well as after death. His instincts as to good and evil are much the same as the ordinary European moral distinctions, only they do not take so wide a range ; instead of extending to the whole human race, or to the whole nation or sect, they extend only to his own tribe, or village, or family. He thinks it wrong to tell a lie, unless perhaps to benefit a relative or friend ; he thinks it wicked to injure a man, unless he has been injured by him ; or to cheat another, unless he thinks that that other would cheat him if he got the chance ; or to take a bride without giving the promised consideration for her. He believes vaguely that it is good for him to meditate on the deity, and to show that he is not forgetting him ; he mutters “ Rám Rám Rám ” or repeats the name of some other Hindu gods when he gets up in the morning, and if he is piously inclined, at other times also, in season and out of season. Notwithstanding all the numerous saints and deities whom he endeavours to propitiate,

he has a vague belief that above all there is one supreme God whom he calls Narayan or Parmeshar, who knows all things and by whom all things were made, and who will reward the good and punish the bad both in this life and in the life to come. There are, of course, particular sects of Hindús who have developed one phase of these beliefs more strongly than another, some who believe in transmigration of souls, some who devote themselves to the worship of one godling more than that of the others; but so far as my experience goes, the moral and religious ideas of the great mass of the Hindú peasantry are as I have above described.

Hindúism, in its widest sense, embraces innumerable sects, some of them of little importance, either because of the small number of their followers, or because of the insignificant effect which the peculiar tenets of the sect have upon their daily life. The most important development of Hindúism in this neighbourhood is the Sikh religion, professed by 28,303 persons, or 11 per cent. of the total population of the district, which thus ranks sixth of the districts of the Province in proportion of Sikhs to total population, although, owing to the smallness of its population, it contains only one-sixtieth of the total number of Sikhs in the Province. A distinction must be made, however, between the true Singh, the followers of the tenth Guru, Govind Singh, and the Nanakpanthís, or followers of the first Guru, Bába Nanak. The latter are often denied the right of calling themselves Sikh, and indeed they often call themselves Hindú only, and it seems probable that in the Census of 1881, some of them returned themselves as Sikh, and others simply as Hindú. The Nanakpanthís have little to distinguish them from ordinary Hindús. They dress like them, and shave the head with the exception of the scalp-lock (*bodí* or *chottí*), whence they are sometimes called *munna*, or shaven Sikhs, or *bodiwálla*. They are allowed the use of tobacco, and are not required to wear any distinguishing marks; they venerate Bráhmans and the cow, and indeed the only difference between them and the ordinary Hindús is, that they follow the tolerant quietist doctrines of Bába Nanak, and are less trammelled by caste rules and ceremonial observances, especially in the matter of food. Many of the Aroras are Nanakpanthís. The true Singh is a follower of the warlike Guru Govind Singh, and is distinguished by five outward marks, the names of which begin with the letter K,—(1) the *kes* or uncut hair and unshaven beard, (2) the *kachch* or short drawers ending above the knee, (3) the *kará* or iron bangle on the wrist, (4) the *kangá* or comb, (5) the *kard* or steel knife. They are initiated by *pahul* or baptism, follow the Granth, and are forbidden the use of tobacco, but allowed to indulge in spirits and drugs; they venerate the cow, and object to cow-killing even more vehemently than the ordinary Hindú does, but are more given to eating the flesh of other animals which chew the cud and divide the hoof, the proper method of killing them being by *jhatká* or decapitation; they are not supposed to follow the teachings of Bráhmans or to be bound by caste rules and ceremonial observances, except those connected with personal cleanliness. The Sikhs in this district, however, are not particular in obeying all these precepts to the letter.

There are in the district a few followers of the carpenter Ram Singh, known as Kúkas (howlers).

They are of little importance, looked down upon with indulgent contempt, as harmless fanatics, too pure in morality, and

too strict in their regard for truth, to command respect from the worldly wise people who, in Sirsa as elsewhere, rule the social roosts, and are interpreters of the moral law suitable for every day use. An important development of Hinduism in the Sirsa district is the Bishnoi sect, of Bagri, or Marwari, origin. Mr. Wilson thinks it clear that the name comes from the prominence they give in their creed and worship to the God Vishnu : they themselves say that it is derived from the 29 (bís-nan) articles of the creed prescribed for them by Jhamba, the founder of the sect. It is commonly said that any member of the higher Hindu castes can become a Bishnoi : in Sirsa, however, they are almost all Ját or Kháti by tribe, and retain the language, dress and other characteristics of the Bágris. As a rule, an anomalous rule for India, they try to sink their tribe in their religion, and give their caste merely as Bishnoi. Jhámabjee's 29 Articles read thus in English :—

For thirty days after child-birth, and five days after a menstrual discharge, a woman must not cook food. Bathe in the morning. Commit not adultery. Be content. Be abstemious and pure. Strain your drinking-water. Be careful of your speech. Examine your fuel in case any living creature be burnt with it. Show pity to living creatures. Keep duty present to your mind as the Teacher bade. Do not steal. Do not speak evil of others. Do not tell lies. Never quarrel. Avoid opium, tobacco, *bhang* and blue clothing. Flee from spirits and flesh. See that your goats are kept alive (not sold to Musalmáns who will kill them for food). Do not plough with bullocks. Keep a fast on the day before the new moon. Do not cut green trees. Sacrifice with fire. Say prayers. Meditate. Perform worship and attain heaven. And the the last of the twenty-nine duties prescribed by the Teacher—Baptize your children, if you would be called a true Bishnoi.

In all religions, precept is one thing, practice another. Bishnois are reported unusually quarrelsome and prone to the use of bad language. Bishnoi farmers use bullocks for their work without scruple when camels are not so convenient. A Bishnoi policeman makes no fuss about wearing a blue uniform coat. On the other hand, regard for animal life is a cardinal religious tenet to which they hold very fast. Their villages swarm with antelope and game which they will not suffer their Mahomedan neighbours to destroy, and they do their best to induce European sportsmen to leave the animals unmolested.

They wanted it made a condition of their settlement, that no one should be allowed to shoot on their lands, at the same time asking to be assessed at lower rates than their neighbours, on the ground that pet deer, &c., do much damage to crops in which they are allowed to roam. Mr. Wilson pitted their piety against their guile, and told them that, if he consented to the remission begged for, it would lessen the merit of their good action in protecting the animals ; wherefore their villages must be treated in the same manner as surrounding ones.

In all of these, the day before a new moon is observed as a Sabbath and fast day, no work being done either afield or in the house. They are vastly more particular about ceremonial purity than ordinary Hindus: it is a common saying, that if a Bishnoi's food is on the first of a string of twenty camels, and a man of another caste touches the last camel of the string, the Bishnoi will consider that food defiled, and throw it away. He shaves the whole of his head, not leaving a scalp lock like the conventional Hindu, and he allows his beard to grow, only making his chin bare on the occasion of a father's death. Thirty days after its birth the children of Bishnoi parents, whether boy or girl, is baptized by the family priest; a ceremony which has the ulterior effect of purifying the house rendered impure by the occurrence of childbirth in it. Bishnois intermarry amongst themselves only, and in their wedding ceremonies, the circumambulation by bride and bridegroom of the sacred fire—a binding part of the sacrament amongst other Hindus—is omitted. They do not revere Brahmans, but have priests (*sadh*) of their own, chosen from among the laity. They do not burn their dead, but bury them under the cattle stall, or in a place frequented by cattle. They observe the Holi festival in a peculiar way of their own, fasting from sunset on the day of the feast till the next forenoon, when, after having heard read the story of Pahlad's tortures at the hands of his infidel father for belief in the god Vishnu, and of his deliverance by the god himself in his incarnation as a Lion-man, they light sacrificial fires, partake of consecrated water, and, after commemorative distribution of gur, eat and drink. Bishnois go on pilgrimage to Jhambaji's tomb near Bikanir, where there is a temple with regular attendants, to whom presents have to be made. There they light sacrificial fires of *jandi* wood in vessels of stone, and offer burnt offerings of barley, oil, ghi, and sugar, reciting set prayers the while. They also distribute *mote* and other grain to the peacocks and pigeons kept at the shrine. If one of the worshippers has had the dire misfortune to kill any animal, has been tempted into selling a cow or goat to a Mahomedan, or been guilty of any other heinous offence, he is there fined and punished by his caste fellows and purged of his sin.

Some Sirsa ascetics and devotees are hardly distinguishable to the exoteric eye from ordinary peasants. They engage in agriculture, marry and have families, eat flesh, drink spirits, in all affairs seemingly behave like the most unspiritual and unsanctified of laymen. The root and reason of the apostleship would appear to consist in their having abandoned their original castes and formed themselves into another of their own devising. Caste seems to be an *instinct* with all sorts and conditions of Indians, affected equally by Mahomedans who theoretically

hold themselves superior to its requisitions, and by pariahs who, according to canon law, are debarred from participation in any of its privileges, as being too low and degraded for inclusion therein; by Sikhs, to the fundamental principles of whose religion as taught by Nanuk and Govind Guru, it is opposed; by Hindus and Mahomedans converted to Christianity. Integrally and essentially, what was the occasion of the split in the Brahmo Somaj a few years ago, but a heresy born of caste proclivities and caste jealousies? Caste dominates all thought, all life, all usuetude all over India, quite irrespectively of racial heredities, clan traditions, or new and caste opposing creeds. Within the memory of this generation, seemingly moribund Bengali Hindus who were taken down to the river-side to die, and who did not die, but recovered from their sickness—Hughli mud in the mouth proving to be a resuscitating, instead of a choking, medium—these living corpses, if they had had any sense of decorum, ought to have known that they were not allowed to return to, and live again with, their families,—were by virtue of their dedication to death, outcasted, flung beyond the pale of orthodox Hindu society. And even they, these unfortunate innocent victims to caste bigotry, good reason though they had to hate and abhor the paraphernalia of caste, yet as soon as they were free from them, incontinently banded together, and formed themselves into a new guild of their own devising, with ceremonial rules and regulations after the pattern of those in force in the guilds of slavery from which they had fortuitously escaped.

That caste is the real religion of Hindustan, much as worship of respectability is the vital religion of England, Scotland and Wales, the comparison of religious creeds and religious practices all over the peninsula of India, shows. Thus, *e. g.*, we find that Sirsa Chuhras, living in Hindu villages, where Hinduism means respectability, have their marriage ceremonies solemnized by Brahmans. If they happen to be domiciled in Mahomedan villages, they affect the Mahomedan *nikah* rite, as being most respectable. When their abode is set among Sikhs, Sikh ceremonial becomes the fashion, and is dutifully followed. Agriculture is deemed the most respectable occupation ordinarily open to a Sirsa artizan, and when an artizan is, by hook or crook, able to keep the wolf from the door by means of agriculture alone, he abandons his hereditary occupation and betakes himself to the superior one. This is the only backsliding from strict caste tradition to which he ever succumbs—the exception that proves the rule. The fact is, he succumbs to the glamour of the respectability attaching to any sort of lien on landed property. Factory workmen and workwomen and their work are similarly looked down upon in England by Hodge the plough-

man, who is neither as intelligent, as educated, nor as well able to buttress his life with comforts as are the mill hands he despises.

All Sirsaïtes, whether Hindu, Musalman, Sikh, or too low in the social status to be accredited with a respectable sectarian denomination, are vastly superstitious, wear amulets and charms as protections against disease or inimical supernaturalism, and resort to rites and exorcisms not germane to the creed they profess, but necessary, to their thinking, for the propitiation of minor and local deities, black spirits, and white and grey ones, saints, ancestors, etc. In this connection pilgrimages are popular. Bishnois journey to Jhambaji's tomb, Kuka Sikhs to Bara Tirah. To other non-local shrines, all tribes and sects make their meritorious way, more or less impartially and indiscriminately, considering any sort of *thrut*, whether to Mecca or Jaganathjee, Lourdes or Geneva, a worthy action, and likely to bring them good in this world, even if it should fail of effect in that which is to come. And, of course, there is always more or less of *tamasha* and excitement and petty pleasurable adventure incidental to a Panjabi pilgrimage, even as there used to be in England not so very many centuries ago, when many a merry company, like the one celebrated by Chaucer, set out from the Tabard Inn, Southwark, *en route* for Canterbury and St. Thomas à Beckett's tomb. The shrines of Masáni, the small-pox goddess at Gurgáon, of Debi at Nagarkot Hardwára, the tomb of Bábab Farid, and the gate of paradise at Pákpattan are favourite resorts with devotees. People interested in folklore may find in this Report accounts of the supernatural reasons that have induced reverence for the local shrines.

There are certain anniversaries which are kept by the villagers as days of rejoicing or of mourning, and as they break the monotony of the peasant's life, he uses them as dates to mark the divisions of the year. The Musalmáns observe the days prescribed by their religion, which are determined by the Muhammadan lunar year, while those observed by the Hindus and Sikhs are determined by the solar year. Comparatively few of the villagers think of the event which the day is intended to commemorate. It is to them a day of fasting and mourning or a day of feasting and rejoicing, when they and their women-kind put on their best clothes, and indulge in some dainty dish, generally composed of flour and coarse sugar and melted butter. Each festival has its own peculiar dish, which is prepared and eaten and distributed to relations and to the poor by all who can afford it, and many festivals seem to present themselves to the peasant's mind simply as the day on which a certain dish is eaten—as Plum-pudding Day, Michaelmas, Goose Day, Pancake Day, &c.

Mahomedan fasts and days of mourning are very strictly observed. Early in the month of Chait, *Basihra* is celebrated, and Sikh and Bagri women array themselves in their best raiment, to worship Sitlá, the small pox goddess. On the 3rd of Sáwan they again get themselves up gorgeously, and eat sweetmeats, and swing one another between trees, in honour of the *Tij*—and their gladsome mature childishness. On the first day of Máh is the *Lohri* anniversary, when little girls go round the hamlet, and beg *gur* from every man in whose house a son has been born or a daughter married within the preceding twelve month. Nobody in Sirsa troubles himself or herself about the origin of, or reason for, this or any other *quasi* religious observance. The usual idea of prayer among the most ignorant of the peasantry seems to be making a bargain with the deity or saint to be propitiated. If, after the bargain has been struck, the god or the saint faithfully performs his part of it, he is rewarded with a flag atop of his temple, offerings of grain, a lighted lamp on his tomb, or the like guerdon. Orthodox Mahomedan men versed in the Koran, sometimes object to such practices, but their women-kind put faith in them, and,—in spite of the subjection of Moslem women—in Sirsa as elsewhere in the world—it is found that, in the long run, *ce que femme veut Dieu le veut*.

The Musalmans on the Satlaj get the mosque-attendant to come and bless the heap of grain on the threshing-floor before it is divided, and he gets a regularly recognised share for doing so; this saves the grain from being carried off by evil spirits. As a precaution against such depredations, the Hindu peasant traces a circle of ashes round his heap of grain. The common cure for cattle-disease, when it breaks out in a village, is to tie a string across the gateway with a potsherd hanging to it, on which some holy man has traced characters supposed to represent a verse from the Shástras or the Qurán, and to have the effect of protecting from disease the cattle who pass below it. A Banya in counting measures of grain does not begin to count with 'one' but with "*barkat*" (a blessing.) Odd numbers are considered to be lucky. The door of a house, or the gateway of a village, must not face the south. A woman must not mention her husband's name or he will die; nor should a man mention his wife's name. One should not speak of one's father-in-law, but call him 'uncle.'

That reminds one of the Bengali notion, that it is unlucky at night-time to stigmatise a snake as *samp*, that it is wiser to refer to it, if it must needs be referred to at all, as *mamoo*.

Mr. Wilson was told by the Sikh Játs of Rori, that trial by ordeal used to be practised quite recently in their part of the world, in doubtful cases, whilst Rori was under the rule of the

Raja of Nabha. In the ordeal by water the contestant parties were made to dive into a deep pond, and the man who had the strongest lungs and could stay longest under water, was held to be in the right in the dispute. In an ordeal by fire, a pipal leaf was placed on the hand of each appellant, and on it a red hot ploughshare was laid. He who first let go lost his cause. The Bodlas are credited with miraculous powers, ability to trace out stolen property, to curse efficaciously, &c. But it is chiefly for the cure of the bite of mad dogs that they are famed, and men of all castes and classes, both Hindu and Musalman, come to them to be cured. The venom is exorcised in this way: The patient is made to sit down, and a circle consisting of six boys and a Bodla, is formed round him. The Bodla takes some moist earth, blows on it, and recites over it a formula containing the name of Allah. He then passes it round the circle of boys, each of whom works it up into a ball (*goldá*) and passes it on. This is done seven times. Then the Bodla takes the seven balls and works them up into one, which he strikes on the wound reciting all the time, and then gives it to the patient, telling him to follow certain minute directions for two and-a-half months; such as, to eat nothing cooked in iron, not to go near water at night, to take care not to see the reflection of the sun or moon in water, &c., and, should the man die, his death is ascribed, not to the failure of the charm, but to his neglect of these instructions.

The number of unmarried adult males in the district is greatly in excess of that of spinsters. While the proportion of children to adults in the whole Panjab population is considerably greater than it is in England; in Sirsa it is greater than in the rest of the province.

This is ascribed to the universal marriage of the women, very few females failing to get wedded before the age of 20. Immense efforts are made by heads of families for the promotion of this end. Even blind, halt, deformed girls achieve matrimony, either by being given "into the bargain" along with a more comely sister, as part and parcel of the contract, or by dint of a sufficient bribe. A strong, healthy, decently presentable daughter, even without pretensions to good looks is, by virtue of her capacity for hard work, a valuable piece of property, and can always be readily disposed of at a good price everywhere in the Panjab: especially in a newly colonized tract like Sirsa, where women are comparatively scarce, and people are not at all troubled with sentiment.

It follows that there is no inducement to infanticide, and there is no reason to suppose that it is practised. It follows, likewise, from the high market value of women, that the proportion of married men owning more than one wife is small.

Girls living at home with their parents are treated in every respect as well as boys. Let Pundita Ramabai and her friends take note of this, and turn their attention to the development, all over India, of such statistics with relation to proportion of numbers in the sexes as those that obtain in Sirsa. Although girls are often married, or, as English usage would say, betrothed, at a very early age, they remain at the paternal home until they are at any rate fifteen; the majority of them, indeed, do not become mothers till they are two or three years older; and many are older than that before their first child is born. Wherefore, and because of prevalent monogamy, the children born to them are healthy, and live and thrive. This, it seems to us, rather than the universality of marriage, is the true reason why the proportion of children to adults in Sirsa is so satisfactorily large.

Mr. Wilson thinks that, possibly, prudential considerations—as to the inability of his family to support extra mouths in comfort—have weight, preventing the early marriages of males. Whatever it may be that induces the waiting race, it is indubitably a great pity that a *festina lente* policy with regard to matrimony is not adopted as a main plank in the National Congress platform; cannot be made to infect the rest of India, and to result in like continent abstinence from premature wedlock. English education inflated congress-wallahs might indeed learn not a few lessons in practical wisdom at the feet of ignorant, uncollegiate, but far more real, patriots of the Sirsa type. As to this matter of premature wedlock, it is clear enough to anyone willing to see, that its prevention would be the best of all possible Indian Famine Insurances.

There is no objection in any Sirsa caste or cult to a widower's remarriage, provided always that he can afford himself the luxury without trespassing on prior claims on his purse. High caste Masalmans, as well as high caste Hindus, do object to widow remarriage, not from a religious standpoint, but as being *infra dig*, a mark of social inferiority. All Jāts and lower castes, however, freely permit widow remarriage, and, unless the unforlorn relict is very old, very ugly indeed, or abnormally prudish, she can soon secure a second husband if so minded. Polyandry is nowhere openly practised in this district; not even in the form of two brothers keeping one wife in common.

The practice is not sufficiently uncommon to startle propriety either on our North-West or North-East frontier; but any such reversion to ancient Hindu usage in Sirsa now-a-days would be unanimously censured, and visited with communal anger. Polygamy is not common; it is commonly manifested, where it does occur, in marriage to the widow of a deceased brother or cousin. The notion of duty in raising up seed to a dead brother pervades many oriental societies.

Apropos of healthy, commonsense marriage customs, the number of deaf mutes in Sirsa is very small. The 1881 census returns showed only 35 male and 10 female lepers; and leprosy does not develop until comparatively late in life: there are no lepers under 20 years of age, and more than half the total number afflicted are over fifty. There are only 109 people scheduled as mad; few are born idiots. Popular opinion has it, that insanity is generally caused by fever mounting to the head, or by grief for the loss of relatives—or property. There is a great deal of blindness, but it is not deemed congenital by the author of the report. When occurring in early life it is said to be due to small-pox. Occurring after maturity, it is popularly ascribed to the use of *rabri* as daily food. A constant diet of it is believed to bring on gradual blindness, first in the form of night blindness (*rataunda* or *andhrāla*) afterwards total loss of sight. In parts of Bengal a similar idea prevails about *kesāri dhal*. It is far more likely that the real causes of the affliction in Sirsa are sun-glare on scorched, treeless, sandy plains, and sandstorms. Cholera and fever epidemics rarely visit this favoured land in malignant form: the district is exceptionally healthy, the average death rate for the five years preceding the compilation of this report having been only 25 per thousand. An excessively dry climate gets most of the credit for this clean health bill. It is supplemented by a general prosperity, which secures practical immunity from visitations of famine, and consequent good stamina in the bulk of the population.

The dry climate would appear to be infinitely more helpful towards promotion of a clean health bill than western world nostrums *in re* sanitation, as to which alien doctrine Sirsa is reprobate in the extreme, the universal habit of the people there being to drink water that has, from dirty ground near the village, found its level in filthy ponds of the usual Indian village type, in which men and women bathe, cattle wallow and void urine, and in which the water, covered with a fungus scum, looks and smells like what it is, "a solution of mud and ordure, full of decomposing animal matter." In this stuff food is cooked. And, knowing all this, and knowing too what it is that apostles of sanitation confidently prophesy as the inevitable outcome of such unorthodox habits and surroundings, "one's ideas of hygiene undergo a change," as the author of this Settlement Report naively puts it. He considers that their open air life has much to do with keeping Sirsa people strong and healthy. Sanitary enthusiasts will not be sorry to hear, perhaps, that disregard of sanitation does, to a certain extent and in spite of a generally speaking clean bill of health, brings about some revenges, in the prevalence of skin diseases of an aggravated character, and of parasites, such as *chigoe*, which chiefly attacks the feet, and sometimes lames a man for life,

or even necessitates amputation, while guinea worm (*nahārwa*) is very common: it also is sometimes the cause of permanent lameness. But, it is comfortably written, that "although the health and comfort must be greatly affected by the presence of two or three worms twenty inches long under the skin, death is seldom caused by the disease. Skin diseases apart, it is in the phenomenal healthiness of the Sirsaites probably, that explanation must be sought for their defiance and contempt for all the statutes and canon of hygienic law; for its missionaries have penetrated even to them. Disregard for, and dislike to the preachings and teachings of hygiene, are innate in all Indian minds: concentrated, punctilious attention to adventitious caste standards of purity, has left in them no room for anything extra, anything real and practical in the way of cleanliness. But fear is a schoolmaster, as well as experience, and many sanitarily unregenerate communities in India have learnt, from fear of cholera epidemics, the beginnings of sanitary wisdom.

The Bagri residents of what are known as the Dry Tracts live from year's end to year's end on *bajra*, *moth*, and milk. Their bread consists of bannocks of *bajra* flour, and their two culinary *pieces de resistance* are *rabri* and *kichri*. The former has been referred to above as a suppositious promutant of blindness. It is a sort of thin gruel. To make it, steep *bajra* flour in buttermilk and water, and place the mixture in the sun to ferment: when it has fermented, add more buttermilk and a little salt, and cook over the fire for a little while; let it cool, and it is ready to be supped. Sirsaites partake of three meals daily, and, except in famine time, all classes of them are well enough off to be able to eat as much grain as they wish for: no small matter this. Over and above our individual perceptions, there is philosophic authority for the statement, that the soul and stomach are convertible terms in fact, as well as in some dictionaries of the Norse language. An ordinary farm labourer in Sirsa, man or woman, is allowed a full seer of grain a day in harvest time, and eats it all. Sikhs keep a better table than Bagris, and Musalmans of the Dry Tract a better still, though, except on very high days and holy days, few Musalman peasants treat themselves to butcher's meat. There is not a pig in the whole district, and fowls are universally held to be unclean animals.

These are probably the substantial reasons why these usually aggressive religionists manage to maintain commendably amicable relations with their Hindu and Sikh neighbours. Another reason making for peace in village society at large, may be found in the cohesion of all the cultivating classes,

of whatever religion or caste, in opposition to the claims, and pretensions of landlords, and in support of their own views on the mightily vexed question of Tenant Right.

Recurring to the subject of domestic animals, it may be noted that dogs are common in all villages: municipal watch-dogs these, attaching themselves to no particular master, but safeguarding the whole village. Following the local custom of the men they mix with, their office is hereditary: they fiercely resent the intrusion of a stranger of their own species. Cats, monkeys, and similar pet nuisances are seldom entertained.

Settlement work is not usually conducive to cultivation of sentiment; but here is, at any rate, an approach to it:—

In these Musalmán villages it is a pleasant sight in the afternoon to see the Máchhin or grain-parcher seated over her fire (*chúla*) with her bowl-shaped iron pan, while the village children bring their lapfuls of grain to be parched. She throws in a few handfuls of grain and keeps stirring it in the pan over the fire with a small brush made of grass, and in a few minutes the grain cracks, and each half turns over and shows a beautiful white. The Máchhin keeps a little for her trouble and returns the rest ready parched to the child, who runs off home with it to be munched with great gusto by the family. Another lively sight in the Satlaj villages is the village-oven (*tanúr*) on the summer evenings, presided over by the Máchhi or Machhin who acts as village baker, when the women have brought their thick wheaten scones to be baked, and stand gossiping round the oven until they are ready. The baker claps the scones on the inside of his oven, which is simply a hole in the ground with the fire inside, and as each is ready, he returns it to the housewife who hurries off with it for the family supper. The baker pays himself (*bhárá*) by keeping a scone or two every now and then according to some recognized rule, sometimes a tenth or twelfth of the bread brought to him to be baked.

The obligations of hospitality are well understood and fulfilled in Sirsa: a guest always gets a better meal than that ordinarily served to the family: it is etiquette that a superlatively best meal should be put on the table on the occasion of a son-in-law's visit. That may or may not be a token that he gets on well with his mother-in-law, as our author says no word on the subject. Considering its importance, it is a strange omission in a book that bristles with information about other aspects of family life. It informs us that, on occasions of family mourning, feasting is to be seen in all its glory. It is considered a great disgrace to surviving members of the family of a deceased one, if at a Death Feast there is not enough food, and more than enough, for all guests who may happen to attend it, bidden or unbidden. Sometimes people having a grudge against one whose obligation it is to play the host, or, wishing to play him a practical joke, make up a surprise party, and come in a body to his house to try and eat him up. At feasts the favourite drink is a sort of

sherbet made of sugar and water ; very little *sharab* is consumed anywhere in the district at any time, use of spirituous liquors being out of the question with Bishnois on account of religious scruples, while Mahomedans, who in other parts of the world do not always respect Kuranic prohibitions of strong drink, are more virtuous in this archaically minded corner of it ; and Sikhs, although not prohibited therefrom, seldom indulge in liquor. Disinclination for it (helped, perchance, by force of surrounding example) would seem to be with them a more cogent advocate for abstention from illicit indulgences than religion is, for many of them smoke tobacco, though that is a gratification of the senses strictly forbidden in their *Granth*. Sirsa Sikhs do not appear to be over strict about any of their ordinances ; not even those minor ordinances, about which people often wax the more punctilious the more they enfranchise themselves from observance of major ones. Most of the Sikhs, for instance, about whose way of life this book discourses wear a *dhoti*, like their Hindu neighbours, instead of the national short drawers (*kachch*). Although blue is, according to accepted tradition among them, a reprehensible colour, and to be avoided accordingly, those of them who take service under the British Raj as policemen enter no protests against, and apparently feel no distaste for, their blue uniforms ; and Sikh women are much given to wearing dark blue trousers. All the women in the world who have tried the dual skirt are not of Lady Haberton's opinion, that it is more comfortable, and a better working garment than the petticoat.

Mahomedan village women avoid the wide pyjamas affected by their sisters who dwell in towns : their usual dress is a petticoat dyed or printed in dark colours, and a loose, vividly red bodice : over the head is thrown a *dopatta*, of some dark coloured cotton cloth. Men, as well as women of all classes and castes, are fond of jewellery and brummagem ornamentation. Even Sikhs, the least ostentatious in this respect, wear earrings, bracelets, finger rings. Sikh women are not suffered to work in the fields ; Bagri women sometimes, Masalmáni women often—have to do so. But the Sikh women are not exempted from this toil for chivalry's sake. Any sort of chivalric feeling for womanhood or women is unknown, and would meet with ridicule, probably, if it ever found expression, or were ever translated into action. Human nature in Sirsa, in spite of the avalanche of poetry provoked by assaults on tenant right, is essentially prosaic and practical minded. In spite of their high market value, women are regarded as very much the inferior sex from a social point of regard—and are given to know that they are. When husband and wife go abroad together, the man stalks on in advance, his drudge follows after,

Putting women's rights questions on one side, as being not at present adapted to the faculty for assimilation in the Sirsa district, and coming to the more general question of those manners that, as the old saw says, "makyth man," we find our author declaring that the people there are not naturally polite; that the Bagris, especially, are often unintentionally rude and boorish in behaviour to all and sundry.

As an illustration of the uncouthness of Sirsa society, we may note that words denoting connection by marriage have become of such common use as abusive terms, that people are ashamed to employ them in their proper sense: thus, a man having occasion to refer to his father-in-law will usually speak of him as uncle (táyá). It is shameful for a man to go to his married daughter's house or take anything from her or her relations; so much so, that when on the occasion of a death in the family, the wife's relations come to join in the mourning, they bring their own food with them, and are not feasted by the deceased's family, like the other mourners. On the other hand, a son-in-law is an honoured guest in his father-in-law's house, and is treated to the best of toothsome sweets. When a married woman goes to visit her mother, it is proper for the women of the family, both on her arrival and on her departure, to make a great lamentation, and lift up the voice and weep. On all occasions of domestic ceremony the relatives are feasted, and the host must see that the provisions do not run short; while the guests are expected to subscribe towards the cost of the feast.

Although intrinsically wanting in the good nature that is the fountain and essence of politeness, Sirsaïtes will cringe to, and fulsomely flatter, and strain after assumption of what they believe to be company manners before any powers that be. Anyone meeting a Sahib on the road will put off his shoes and stand barefooted in a suppliant attitude till the great man has passed by, just as, before the era of railways, and the concomitant incursions of mean whites, natives used to do all over the country. A Sirsa man's conception of politeness is not modelled on Western-world standards of any particular type, however. He may (and will), without reproach, yawn wide-mouthed and barefacedly in an official dignitary's face, in the course of an audience that bores him.

Full account is rendered in this book of the domestic ceremonies performed on the occasion of a child's birth, of marriages, of funerals, &c. Purification of women after child-birth is effected mainly through the medium of cow's urine. Even a lady visitor, calling to congratulate the mother, must—to purify them—wash her hands in this, before undertaking any household work of her own. Equally important with a child's

birth is the determination of the name proper for it, which is arrived at by means of conjuration on the part of the family Brahman. And, after that good office has been done and paid for, the child is never known by the name such pains have been taken to procure, being invariably called by 'some other better suited to parental fancy. On the day fixed for enduing a boy baby with the official name, his mother once more washes her head in urine. It takes a long while to wean children in Sirsa ; often three years. As to marriages there, every man must marry within his caste, sometimes within a certain defined section of that caste, but, except where Mahomedan Law has so far overridden custom as to make alliance between cousins lawful, he must not marry within his own agnatic group (*got*), for all females of his own generation related to him through agnates only are considered to be his sisters. Nor must he marry anyone nearly related to him through his mother. Some tribes extend the prohibition still further, and forbid a man to marry in his mother's clan or village, or even in his grandmother's clan. It is to be kept in remembrance that a girl is a valuable piece of property, and that the ceremony of marriage actually, in very deed, transfers ownership in her and her services from her own agnates to those of her husband. If, on that husband's death, she marries his brother, no formal transfer is required for that arrangement, since she belongs already to her husband's agnates. Briefly, the fundamental principles of the whole body of tribal custom with reference to marriage are, that a man must marry in his own caste or tribe, but must not marry an agnate. Furthermore, that land converted, whether by usage or special agreement, within the four corners of a marriage settlement, must on no account be alienated from the family. The binding consummating-marriage ceremony is called *muklāwa*. The essential part of a Jāt bride's dowry is a spinning wheel. Among Nats the wedding service is performed by wrapping the bride in a blanket, and making her go round the bridegroom three times, while a Brahman repeats certain formulas. A bride of this caste does not return to her father's house after her wedding, and so there is no *muklāwa* proper ; but, to represent it, her father, twelve months afterwards, sends the young couple a present of—a donkey.

Among Kumhars, when a man is about to die, some *dáb gass* is spread on the ground, and he is lifted off his bed and placed on the grass, as it is considered unlucky to die on a bed. This is a superstition obtaining with many castes in many parts of India.

Bishnois do not burn, but bury, their dead, digging the grave themselves, and carrying the corpse to it on their hands, instead of on a bier. After the grave has been filled

up with earth, grain is thrown on the top for the birds: a prettier, more tuneful custom, perhaps, than scattering perishable flowers on it to render more realistic the sense of decay. In this caste the guests bidden sometimes contribute towards the expense of the funeral feast, which lasts for three days, and often costs more money than the family of the deceased can afford. A period of forty days of mourning is enjoined after the death of a Mahomedan man. During that time his surviving relatives have to sleep on the ground, instead of on charpoys. Wills and testaments are quite unknown: a proprietor cannot interfere with the distribution of his property after his demise. Even during his lifetime he cannot alienate immovable family property, though he may make ducks and drakes of the movable, pretty much as he pleases. But land-occupancy is a sacred trust. Possession of it confers a patent of respectability.

It is advisable here to quote Mr. Wilson's condensed summing up of his views on the subject of domestic ceremonies, their indications, and underlying morals:—

The first thing that strikes the observer of these domestic ceremonies is the astonishing number of elaborate formalities which are performed in all tribes, and even in the poorest families, on the occasion of domestic events, and especially in connection with marriage. For many of these formalities no reasonable origin can be assigned by the people themselves: they perform them merely because their fathers did before them, and yet, wherever it is possible, great care is taken to go through the most minute portions of these irksome and expensive ceremonies. Another characteristic of them is the number of persons required to take part in them, and the duties assigned to each. Every minute ceremony must be performed by some one standing in a certain relation to the parties. Not only are the agnates of the bride and bridegroom required to take part in the wedding ceremonies, but parts are assigned to the sister and mother, the maternal aunt and the brother's wife; not only must the family priest and the family barber be present, but the potter, the musician, the sweeper and other menials of the family all take a share in the formalities. Another remarkable characteristic of the ceremonies, is the amount of money and other valuables that exchanges hands, and the number of customary fees and presents that have to be given, not only to the principal assistants at the ceremony, such as the priest and barber, but to all the menials and dependents, not only to the bride and bridegroom and their families collectively, but to the sister, mother and other relatives individually; in fact, every little ceremony has to be paid for, every ceremonial duty carries with it the right of receiving a customary fee. In most cases these fees are actually paid, and make marriages very costly, for when added together, they amount to a large sum; but sometimes the money changes hands as a form only, and is not actually expended, but returned to the giver. Again, it is noticeable that, notwithstanding the mercenary nature of most of the ceremonies connected with marriage, there are a number of customs which seem to support the theory, that marriage formerly was effected by capture of the bride; for instance, the preparatory anointing of the bridegroom and his resting from work for some days before the marriage, his

formally cutting a branch off a *jand* tree before starting for the bride's house, his sister's attempt to stop him by seizing his rein, the halting of the party outside the bride's village, the pretence of shutting the village gate in their faces and of driving them back with blows, and the ceremony in which the bridegroom strikes with an axe or twig a frame hung up at the girl's door. It is also very remarkable how similar in their general character are the ceremonies performed by all sorts of tribes, high-caste and low-caste, Hindú, Sikh and Musalmán. It is true that there are certain ceremonies which appear to be peculiar to certain tribes, and that there are small differences in the particular ceremonies as practised by different tribes; but, as a rule, these differences are insignificant in comparison with the general resemblance. Probably some of the inferior tribes, whose origin is almost certainly quite different from that of the higher races, may have simply imitated the ceremonies of their masters, but even after making full allowance for possible imitation, there remains an extraordinary similarity in the elaborate and seemingly meaningless ceremonies so carefully performed. It is also extraordinary how little difference a change of religion makes in the character of the ceremonies; of course, some of them have been supplanted by new forms necessitated by the essential doctrines of the religion; thus a Bishnoi child must be baptised, a Musalmán boy must be circumcised; the Musalmán performs the actual wedding contract by the Muhammadan form of *nikáh* instead of the circumambulation round the sacred fire; the Hindu burns his dead, while the Musalmán and the Bishnoi buries his dead; but all of them have besides these different ceremonies, a number of other elaborate formalities performed with almost equal care, and having much the same character among the followers of all religions. It may also be noticed that only some of the ceremonies can be called religious, and require the attendance of ministers of religion; the Hindu Bráhmaṇ must name the child, must light the sacred fire, and perform the marriage ceremony; the Bishnoi Sádhi must baptise the child; the Musalmán mosque-attendant must perform the *Nikáh* and read the Qurán at the funeral; but there are many elaborate ceremonies which require the presence of no minister of religion, and are performed by the relatives themselves with the aid of their servants and dependants; and may, therefore, be considered to be tribal or family ceremonies as distinguished from religious formalities.

Except in social matters, the tribal organization is not strong in Sirsa. Theoretically, caste questions are supposed to be decided by a *pañcháyat*; and its decisions are sometimes respected. But the *pañcháyats* are weak and powerless to enforce a disputed judgment: it is a common saying that, now that disputes can be carried to the civil courts, there are but few who think of obeying the degrees of the *parah*, as a *pañcháyat* is called. This adaptation to a new order of affairs is scarcely to be regretted, we think, though sentimentalists will be prone to lament the innovation. Arbitration jumps well enough with the habit of life and thought associated with a primitive and much circumscribed society, but can very seldom indeed satisfy suitors who have outgrown their bump of veneration, and, consciously or unconsciously, cultivated instead some regard for definiteness and scientific mechanism in the

conduct of litigation, as well as in other affairs of life. However much he may want to set his clock back, no man is able to keep altogether behind his age and surroundings. The influences of propinquity are as forceful as they are subtle and elusive. Arbitrations seldom satisfy either party concerned. However, in Sirsa, barring differences of opinion about tenant-right and landlord, there is not much occasion for recourse to civil courts, fair dealing between man and man being the rule rather than the exception. Nevertheless, the ideas of duty of its inhabitants are not, we are told, very far reaching, though practical. Cattle stealing being, from their point of regard, a duty they owe to themselves, looking on it as a crime is a narrow-minded, insular, English innovation on time honoured propriety. Murders are few, and those few are commonly instigated by the demon jealousy, not by sordid motives. Sexual immorality is very rare, although from the obscene allusions abounding in the most ordinary talk, it is plain that immoral ideas are familiar. The moral of which is that ignorance is not innocence. Our English great grandmothers who read Fielding's and Smolletts's novels, and enjoyed them without a blush, were not therefore immoral. Decency has its vicissitudes of fashion like other reputabilities.

Returning to the subject of pancháyats, we find that there is still a survival of the power and importance of the ancient *parah* among the holy tribes of the Satlej—Bodlas, Chishtis, and Lakhake Bhattis. This consists in a gathering of the clans, called *meldá*, a sort of "Cursing Committee" that is convened when any outsider has injured or angered one of their members. A deputation of the holy ones waits on the offender to expostulate, and if, after that, he is contumacious and refuses redress, they solemnly invoke curses on his head. As the Brotherhood's reputation for sanctity still endures, and might—who knows—impel high gods or saintly powers to take action against the recusant, the cursing seldom fails to produce the effect desired. Few of the tribes have now any special regard for any special ruling family. How should there be loyalty where all these are *nouveaux riches*, and lack the glamour of military achievement that will send a nation frantic with adoration for a *parvenu* like Napoleon Buonaparte? "The Wattus and Joiyas tell of old Nawábs belonging to their clans, and the Bhattís have a more recent recollection of the Nawáb of Ráníá, and showed it by voting for his representative as their *zaildár*. The Siddhu Barárs, especially the Mahárájke branch, are proud of their connection with the Mahárája of Pattiála and other ruling chiefs, but here, as in other new countries, each colonist came depending chiefly on his own exertions to make his way and earn his livelihood; and there is consequent-

ly more independence and less inequality of rank and position than in most older-settled countries."

Mr. Wilson's moral is, that, though the family system of agnatic relationship is strong, tribal organization is weak. Though popular tendencies in Sirsa incline now-a-days rather towards democracy, than to the other end of the see-saw, the district has never shown any proclivities towards "that fatal drollery," representative Government. Education there is practically none, in the School Board acceptance of the term. But the common-sense born of experience and freedom from shams does duty for it well enough, apparently. And we know that, whereas aforetime old King Cole, of happy memory,

"Scorned the fetters of the 24 letters,
It saved him a deal of trouble."

The ordinary type of Bāgri village in the Dry Tract was always founded originally at the edge of some natural hollow, into which drainage water from the neighbouring higher land collected. This hollow was gradually deepened into a tank, the clay dug out to make this, being used to build huts for the colonists—flat-roofed huts with roughly-shaped sun-dried bricks for wall compost, and standing in the midst of an open space, or enclosed, may be, with a hedge of thorns. Under the benign influence of prosperous harvests, these huts, in due season, develop into more ambitious homesteads, with suitable out-offices attached; all the important material for which is derived from the constantly deepening tank, upon which, and its capacity for water storage, the main comfort in life and more than that must always depend.

For wells, even when excavated under the direction of professional *sungas* (snuffers of underground sweet water), cannot ensure continued freedom from the unsavoury brackishness that is the leading characteristic of Punjab wells. When the village tank dries up, it is not uncommon for villagers to have to go as many as five miles to reach the nearest well supply of potable water. Of 650 villages in the district, there are 117 that have no well at all, and 106 in which the water is so saltish as to be quite undrinkable. The drinking water trouble is the great trouble of Sirsa, though the Sirsaïtes prefer to put the law of landlord and tenant in the forefront of their array of afflictions. As time goes on, new colonies to settle in new homesteads and courtyards in the Punjab village, and thus by degrees it grows until it comes to consist of a number of separate family enclosures, each with its own houses and its own entrance, the whole surrounded by a deep ditch or thickset hedge of thorns, with, again, but one entrance, a rude gate closed at night-time as a protection against thieves. There will be, perhaps, in this village one or two houses, belonging to

well-to-do peasants, of a somewhat pretentious character, high, flat-roofed, two storeyed structures, with lofty red brick gateways. Outside the ditch, beyond the orthodox pale, are the hovels of the unclean castes, Chamars or Chuhras; may be, an encampment of wandering Ods or Sansis, squalidly squatted under grass tattis on the common. Musalman villages in the Dry Tract are similar to those of the Bagris, only dirtier, more straggling, and with hedge and ditch in palpable need of repairs. Sikh villages again are ordinarily cleaner and neater and more regular in appearance than those of the Bágris, and though the lanes in them are often uncomfortably narrow, they are not foul. The best type of village in the district is to be found on the Ghaggar, where several Ráin hamlets consist chiefly of neat, substantial red brick houses—the bricks derived sometimes from neighbouring *stupas*. There are not many guest-houses in the district, except among the Sikh Jats. Most Musalmán villages can boast of a mosque, though it may not be by any means a thing of beauty. A Hindu village often has its little Thákurdwara, a kutchha building with a flag atop, to distinguish it from its secular surroundings. There are few trees, much sand, much flat unpicturesque sameness of aspect, reacting on men's minds. Sirsaites have no æsthetic proclivities, architectural, pictorial, or any other; not even in the matter of dress and personal adornment. It might be said of them, as was said the other day of certain patrons and expositors of art in England, that they have a good deal of taste and all of it is bad. Division of labour is carried to even further extremes in Sirsa than in Bengal, and the rate of hire or payment for it is fixed, in a ratio that testifies to appreciation of one of the fine arts—poetry. The village *Shikari* and the *Deredar*, the man whose business it is to keep everybody's hookah full and alight when in village conclave, only gets paid at the rate of 5 seers per plough at harvest time, while the *Mirásí*, who supplies poetry and music on due occasions, is recompensed at the rate of 15 seers.

The London booksellers say that verse is a drug in the market in this year of grace 1891, and half the men one meets at dinner, at the club, and so forth, tell one candidly that they do not care for poetry; that it bores them. We suspect that innate love for poetry does not survive a primitive habit of life; that too much civilization refines it away, and substitutes the music hall, or Zola's realistic novels.

That Sirsa is primitive still, is evidenced by the fact that much of the trade of the district is carried on by means of barter, without the intervention of coins or tokens. Baniyas do most of such banking business as there is; Sunárs a little of it. The position of the former is very inferior to that held by their

confrères in other parts of the province, for the agricultural classes, tenants and landlords alike, are so well off that they seldom have a balance against them at the Baniya's at harvest time: on the contrary, they are able to store up grain, and wait for a favourable market. Only 5 per cent. of the males over 15 years old were returned at the census as engaged in commercial pursuits. Camels are the principal means of transport employed, *pukka* roads being unknown, and existent *kaccha* ones—very *kaccha* indeed, albeit pronounced good of their kind, when not seasonably buried in loose sand, or slopped into tenacious mud. The Rewári Firozpur Railway will, it is hoped, bring every part of the district “much nearer the rest of the world” than it has hitherto been. Mr. Wilson's cameo of the last days of anti-Railway rural simplicity is for that reason specially valuable.

The trade of the district centres in Sirsa at one end, in Fázilká at the other, food grains, sugar, ghi and wool being its staples, both export and import. A good deal of business is transacted by means of *hundis*; but it is not unusual to despatch a camel-load of silver in payment for a consignment. Sirsa trade had its genesis, and has grown to its present dimensions, under British auspices. In 1837, when Captain Thoresby, the first English Superintendent came to the district, the town of Sirsa, once flourishing, had been totally deserted in the anarchic time that followed Runjeet Singh's death. Its population in 1853 was estimated at 7,242; in 1881 it amounted to 12,292, and it has since gone on increasing.

Most of the trade of the town (which is a second class Municipality, with four official and seven non-official members) is in the hands of Hindu banias from Rajputana and the country to the South-east. By far the greater part of the town's income is derived from octroi. —There is also an income from fees levied for grazing in the Government Bír.

“Sirsa as the head-quarters of the district has a good kachahri and treasury, a police office and lines, a church, appropriately named ‘St. John's in the Wilderness,’ a small station garden, and a few bungalows, some of which are survivals of the days before the Mutiny, when a part of the Haryana local battalion was stationed here. There is also a small fort with a high mud wall and a deep ditch, prepared after the Mutiny as a place of refuge for the European residents in times of danger. Inside the town wall there are a Municipal Hall, a District School, a Gurudwara supported by the Sikhs, and a large masonry building called the Katra, built by the Treasurer Fathchand as a market-place, but not much used for that purpose.”

Fázilká has sprung up almost as suddenly as Sirsa.

“When in 1844 the tract of country on the Satlaj was ceded
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by Bhawalpur, there was no village where Fázilká now stands; but Mr. Vans Agnew, the first officer stationed there, built himself a bungalow, from which the place became known as Bangla, a name still given to the town and the tahsil by the people. Two years later Mr. Oliver established a few shops there and gave the place the name of Fázilká, from Fázil, one of the early Wattu settlers. Its favourable position near the Satlaj has enabled it to engross almost the whole of the export trade from the great Jangal tract towards Sind, and made it very soon a flourishing mart; and its population and trade have steadily increased. In 1868 the population was 3,406; in 1875 it was 4,346; and in 1881 it had risen to 6,851, or more than double what it was in 1868. More than two-thirds of the total population are Hindus, and almost all the inhabitants are engaged in trade and operations connected with it."

Mr. Wilson's account of the details of his settlement operations, and the agricultural conditions on which they were based, is full and particular. It has value and interest for all Revenue Officers, but this writing is rather for that wider class, the general reader, and so we abstain from technicalities.

Moreover, as to chapter V, treating of the growth of rights in the land and in pasturage, of partitions, occupancy tenures, sales and mortgages, trees and their produce, alluvion and diluvion, and the course of legislation in connection with these matters, it should be studied in its entirety. Serviceable condensation of the contents of the chapter in the space available to us in the *Calcutta Review* is out of the question.

We can only say that, to all appearance nothing has been forgotten or slurred over, and that Mr. Wilson is to be congratulated on the production of a clear, comprehensive, and very interesting Report.

ART. IV.—CENTRAL ASIAN EXPLORATION IN PAST CENTURIES.

[CHIEFLY FROM GREEK, CHINESE, ARABIC AND RUSSIAN AUTHORITIES.]

I.

THE growth of the Scientific Exploration of Turkestan is closely linked with the history of religious crusades, conquests, and the commercial and political relations of the East and West.

Journeys with the special aim of exploring the country were very rarely undertaken till quite recently; while in the early and Middle Ages, almost all knowledge of Turkestan was gained either by merchants, ambassadors, military commanders, or, finally by pilgrims, especially of the Buddhist faith. Hence the history of our knowledge of Turkestan can only be told in connexion with the history of the political and civil life of the peoples of Central Asia, as was excellently done for his own time by Karl Ritter; but since Karl Ritter's monumental work was published, a mass of new facts have been unearthed, and many of the blanks on his map have been filled up, so that a new summary of the whole subject, rather than any mere additions to his book, becomes necessary.

The work of following up the history of special geographical and geological explorations of Turkestan in connexion with Central Asia has been largely accomplished by Richthofen's "China," where the history of the exploration of China in connexion with Central Asia and Turkestan, beginning from the earliest ages, is narrated with such fulness and knowledge of the facts, as to leave nothing further to be done in that direction. In view of this, we will confine ourselves to a brief sketch of the history of the exploration of Turkestan up to the first half of the present century, or, more exactly, up to the appearance of Humboldt's "Asie Centrale," dealing only with the most important facts.

In recent years, that is, since the years 1840-1850, and more especially since the latter date, the explorations of the Turkestan basin reach a much more considerable development, and receive a different direction, from the fact that Turkestan becomes more particularised, and more separated from Central Asia, and secondly, because they are limited to the direct exploration of European travellers, among whom Russians have played a not unimportant part.

Historians inform us that the Turkestan basin was, in

ancient times, very different from what it is at present. It was once a flourishing country in which was born and developed one of the oldest civilizations in the world. The Aryan population of the valley of the Jaxartes and Oxus had, in remote antiquity, founded such kingdoms as Bactriana (Balkh) Transoxiana (Bukhara) Sogdiana (Zerafshan) and Kharazmia or Khavarezm (Khiva) which were characterized by a highly cultured population, material wealth, and a very considerably developed political system. Bactriana, with the city of Bactra, now the half deserted Balkh, on the authority of Ktesias and Diodorus, flourished even in the time of Ninias, the Assyrian, that is, 1200 B.C., and bears by right the title of the "mother of cities."

The now insignificant Khivá, if Abiruni is correct, once stood so high in learning, that its solar calendar was reckoned the best in the world. The era of the Kharazmians began 678 years before Christ. The famous Yakut testifies to the riches of the library of Merv, formerly one of the leading cities of Kharazmia, and now a wretched camp of the Turkmens. The prosperity of Khavarezma (the land of flowers) reached its highest point in the eleventh century, and lasted to the invasion of Chingis Khan in the first half of the thirteenth century.

Here was also the flourishing Hyrkania, famous for its high cultivation, and its extensive commerce with Balkh. Transoxiana was celebrated alike for its learning and its trade, especially in the precious metals, to which the Chinese also bear witness.

Sogdiana was the cradle of Zoroaster's learning, and of his creed of the spirits of light and the demons of darkness. From Sogdiana, his followers spread East and West with their Zend Avesta, carrying one of the earliest spiritual inspirations of the Indo-European race. Apart from her own high internal civilization, Turkestan has long served as the channel of intercourse between the ancient kingdoms of the East and West. Across Turkestan lay the oldest and most frequented road of the silk trade. Silk was prepared in China as long ago as the year 2000 B.C., and, on the other hand, silk was known to the Greeks certainly before the time of Herodotus, perhaps even as early as the ninth century before Christ: they valued it highly, and received it from the country of Issedon Serica, now Western Turkestan. Across Turkestan great movements of races have taken place, directing themselves along two roads, across the Jungar route and the Terek-Davan pass. By this road passed the hordes who at one time threatened to engulf the whole of Europe; at different epochs it was the arena of the military exploits of Asia's greatest warriors, from Cyrus, Xerxes, and Alexander of Macedon, to Chingis Khan, Tamerlane, and Nadir Shah; by this way, finally, until the Dutch discovered the

ocean route, went all the embassies from Europe to the great sovereigns of the East.

It may be thought that, under such favourable conditions, not only the history of Turkistan, but the natural character of the country should be well known in every detail ; but this is far from being so. All old descriptions of Turkestan are fragmentary and inaccurate, so that, not more than fifty years ago, we had a totally incorrect idea of the physical aspect of the country ; and, even at the present day, there are many unknown regions on the maps. The fact is, that the Bactrians left no written records of their occupation ; the Greek and Roman writers, beginning with Herodotus, Strabo, and Ptolemy, left a far from adequate and complete description, while the Arab geographers not only did not complete the work of their predecessors, but even sometimes confused the little we already knew.

Chinese sources of information are more reliable, because the Chinese knew the use of the compass 1250 years before Ptolemy ; but they became intelligible only quite recently, when we had already become directly acquainted with Turkestan, just as some of the mediæval explorers were rightly appreciated only as recently as a few decades ago. The problem is further complicated by the fact that, more than once, Turkestan has been overrun by savage hordes, who cared little to preserve the traces of their predecessors.

The history of the Turkestan basin, as of Central Asia in general, up to the second century before Christ, is shrouded in mystery ; insignificant traces found in the most ancient monument of Chinese literature, the book of Yu-kung (2357-720 B.C.) on the one side, and the records of Greek writers before Ptolemy, on the other, hardly illuminate at all the history of Turkistan, still less its natural character. Herodotus relates only fragmentary reports, collected by him partly from the traditions of the Scythians, or gathered during his stay in Olbia, and partly from the work of the Greek Aristias, who was reported to have made a journey to the Issedones that is, the Tarim basin, in the eighth century before Christ.

On the information obtained from these sources, Herodotus speaks of the Issedones, who are identified with the inhabitants of the south-western part of the Tarim basin. He reports that beyond the Issedones lived the one-eyed Armaspians, and the Gryphons who guarded their gold ; while to the south of the Issedones dwelt the Argippi, who were known to the Scythians. To the north of the Issedones and Argippi, lay a lofty and inaccessible mountainous country, very little known. He speaks briefly of the river Araxes, and the peoples inhabiting it. The Araxes of Herodotus has been identified with the Amu

Darya, and it has even been attempted to prove that Herodotus knew of the Aral basin, though the proof is hardly convincing, especially as Konrad Mannert, one of the greatest authorities on classical history, maintains that not only Herodotus, but even the latest writers among the Greeks and Romans, never even suspected the existence of Aral. The first notice of Aral appears in the works of the Arabian writers of the Middle Ages, and the first accurate exploration of the Aral basin was made by the Russians in the last century.

In the fourth century before Christ, Alexander of Macedon made his expedition to Asia. He reached Jizak and Uratinba on the north, traversed Sogdiana to the lake Iskander-Kul, which still bears his name, and at one time had his centre of operations at Samarkand. This expedition obtained much new information about Turkistan, and especially of its southern parts, as Alexander's historians, Quintus Curtius and Arrian, only described the country they had seen themselves, such as Mariana, Bactriana and Sogdiana, but about the northern and mountainous regions of Turkistan they have recorded almost nothing.

Having gained a mass of new facts and considerably extended our knowledge of the surface of the earth, Alexander's expedition exercised an immense influence on the growth of a general view of the earth's physical conformation, which bore fruit under the first three Ptolemies, whose reigns extend over the century from 301 B. C., to 204 B. C.; under them sprung up and developed the famous Alexandrian school, with its excellent tendency towards broad generalizations. This striving after generalizations on the one side, led to the intelligible desire "to rise from obscure surmises as to the earth's distribution, to an exact knowledge of the dimensions of the terrestrial sphere," that is, to the first measurement of a degree of latitude between Siena and Alexandria, and the calculation of the earth's circumference, undertaken by Eratosthenes, to a more accurate knowledge of the siderial world, and so forth, but on the other, the desire for generalization led to a confusion of the actual facts of the geography of Asia; many pupils of the Alexandrian school, although they derived their views from Alexander of Macedon's expedition, nevertheless, in their broad and insecurely based hypotheses, not infrequently confused geography with poetry and mythology.

Moreover, the civilization introduced by Alexander of Macedon into Turkistan, and the prosperity of the Græco-Bactrian kingdom, did not last long. The wild bands of nomads that swarmed in Central Asia from time immemorial were never at peace. Like the waves of the sea, they spread, time after time, over the wide expanse of the steppes, displacing and

subjugating each other. Expanding in every direction, they advanced into Turkistan, either through the old trade-route, the Terek Davan pass, or across the Jungar ridge. Their tendency to advance to the south-east, towards China, was checked by the erection of the great wall of China between the third century B. C. and the birth of Christ. This great wall had an immense effect on history, as it deflected the hordes of nomads to the west, to the Turkistan basin. About this time, the Græco-Bactrian kingdom began to lose power and at last fell to pieces and disappeared; its place being occupied by the hordes of nomads, entering from the Tarim basin.

The nomad tribe of In-chi (Getae) of Mongolian origin, at that time occupied Kotan, besides the white, blue-eyed Ussuns; at the same time, to the north of Tyan-Shan, in the present Jungaria, dwelt a tribe called Sé or Syé. In the year 177 B. C., the tribe of In-chi or Ioe-chi, pressed by the Hions or Huns, also of Mongolian origin, were compelled to migrate to Jungaria and the Syr-Darya, pressing the Sé further to the south.

A little later the Ussuns, pressed likewise by the Huns, compelled the Ioe-chi to migrate still further to the south, to Sogdiana, Transoxiana, and Bactria, and, driving the Sé to Fergana, the Ioe-chi annihilated the Greek kingdom, and founded the new kingdom of the Getae or Indo-Scythians.

The blue eyed Ussuns colonised the district between the Syr and Amu Daryas, they soon became blended with the other peoples, and played no considerable role in history. The Huns or Hions grew stronger and more numerous in what is now Jungaria, and obtained considerable power, although they were soon scattered by the Chinese; subsequently, however, they filled a more important role, subjugating all Central Asia, as well as terrorising Europe.—Besides these tribes the Tarim basin was occupied by the Uguri, the earliest of the Turkish tribes, settled in Urumchi, Barkula, and Khama; they attained such influence, that the whole of Western Central Asia was called after them Turkistan: the land of the Turks.

Thus, all these nomad tribes, issuing from Central Asia, followed the same road through the Jungaria pass. The barbarous hordes settled in the seat of the Græco-Bactrian monarchy, and annihilated its high civilization. If from the period of Alexander of Macedon and his historians, we have received almost no information as to the greater part of Turkistan, then from its new occupants we can expect little; so much the less, that, from this time—the second century before Christ—there begin to appear definite data about Turkistan, thanks to the fact that the Chinese, the most cultivated nation of the East, began to make their way thither. Under the direction of the powerful dynasty of Khan (163 B. C.—196 A. D.), the

Chinese, wishing to drive back the restless barbarians to the west, reached the most western limits of Central Asia, and even began a considerable commerce with Persia (Pas-sé) and the Romans (Li-kien, or Tatzin). The Chinese official, Chang-kien, in the year 128 B. C., first penetrated the Terek-Davan Pass, and gained some knowledge of Fergana and Tavan (Ura-Tinbé); he also traversed the Tian-Shan to lake Issyk-Kul.

Chang-Kien is, in the eyes of the Chinese, almost a Columbus, opening up new worlds. Very soon after, the Chinese, finding themselves in commercial relations with the tribes of Central Asia, were compelled to subjugate Dasia, Taman, and Sogdiana and other sections of Turkestan, and in the year 95 B.C., the Chinese general Pan-chou advanced victoriously as far as the Caspian, that is, to the borders of the Roman Empire. This was the first direct meeting of the most highly cultivated peoples of the East and the West. The Chinese and Romans exchanged ambassadors, commerce received a vast development, and the Terek-Davan route became more popular, entirely eclipsing the road over Jungar. The records of Chang-kien, who died in the year 114 B.C., as well as the histories of the elder and younger Khans, first inform us of the peoples of Turkestan, of its political relations, of its natural products, of the roads across the Terek-Davan Pass, of the Muzart Mountain, and Lake Issyk-kul: in a word, they give the earliest accurate, although brief, view of Turkestan. The Turkestan countries, however, never became organically absorbed into China; in antiquity, as in later times, they only belonged to China temporarily, and, as soon as any of the Turkestan tribes became strong and numerous, Turkestan fell away from China and became independent.

After the great dynasty of Khan, or rather, at its termination in the year 150 A. D., the Chinese lost all their influence in Turkestan, owing to the antagonism of the Uigurs; they won it back again in the seventh century after Christ, and, during this period of barbarian rule, all information about Turkestan is naturally again missing. But, thanks to the past relations of the Chinese with the Romans, in the first century B.C., there had been some possibility for Europe to gain information about Turkestan and the eastern peoples. Let us therefore return to the Græco-Roman sources of information.

For fulness and accuracy of information, the first place indisputably belongs to Claudius Ptolemy. Pliny gives such hazy information, that to analyse it carefully would be fruitless trouble. Strabo also, in all the vast mass of learning collected in his forty-volumed history and geography, adds very little that is new, especially about Asia; and his information about the Jaxartes, which he believed to separate into

several streams, one of which fell into the Hyrcanian Gulf, while another fell into the Northern Sea, served only to give birth to the false hypothesis that the Sea of Aral was united with the Northern Ocean in historic times,—a view which was refuted by Humboldt, on the authority of other classical writers. Ptolemy has an immense superiority over these other writers, because, in distributing his information, he arranges it according to the degrees which he had measured, and also because his mistakes are thereby more easily discovered and corrected.

“Without doubt” says Humboldt, “Ptolemy’s universal geography has this merit, that it represents to us the ancient world not only graphically in his descriptions, but also quantitatively, through the so-called definitions of places by longitude, the height of the pole-star (the latitude), and the length of the day.” Ptolemy availed himself not only of the observations of the writers commissioned by him, but also of the record of the merchant Maïs, surnamed Titianus, who informed him of the mercantile route across Pamir to the country of Serica (China), which received its name from the silk trade.

Serica, according to Ptolemy’s description, lay to the east of Scythia, extra Imaum, and, along with it, is divided by the great meridional ridge of Imaus (now Pamir) from the more southern Scythia, intra Imaum, the regions of the Komedi (now Hissara) and Antiochia (now Merv). On the south of Serica lay the mountains of Casia (now Kuen-Lun) and Emodus (Himalaya); and on the north, the Auk sai or Ainib Range (now Tian-Shan). Ptolemy very accurately defined the direction of the course of the Oxus (Amu Darya), and pointed out its commercial importance. He confirmed the correct views of Herodotus and Aristotle as to the complete confinement of the Caspian Sea—a truth which, since the time of the unreliable historians of Alexander the Great, had been obscured for several centuries. He was the first to learn the conformation of Pamir and its neighbourhood. It is only from Ptolemy’s information that we can guess the direction of the old trade route across the Pamir plateau, which is even at present not quite clear; some authorities make it cross Fergana and the Terek-Davan Pass; others place it directly over Pamir; but it is most probable that both roads were used, as seems to be proved from Chinese sources.

Two main faults in Ptolemy’s geography have been pointed out, namely, that he incorrectly indicated the direction of the Jaxartes, making it flow, not from the east as it really does, but from the south; and secondly, that he separates the ridge of Imaus from Pamir, and puts it 8° or 10° more to the east. If these two mistakes are corrected, then Ptolemy’s map bears the closest resemblance to contemporary results, at any rate,

in its broad outlines. Although these mistakes which we have pointed out, led orientalists into some confusion, nevertheless, as Humboldt has shown, up to the sixteenth century Ptolemy's geography served as the handbook for all travellers; the information it contains as to Turkestan, and especially as to Pamir, is far more extensive and reliable than the information of the later geographers, even in the first half of the last century.

From the decline of Chinese power in Turkestan, and generally in Central Asia, all their knowledge of the West ceases; in spite of repeated embassies from the Romans (for instance in the years 166, 284, and others), the Chinese became again completely separated from the West. In Europe, after Ptolemy's time, a complete cessation of explorations of Turkestan took place. For the space of the next ten centuries, that is to the time of Marco Polo, not a single original authority added anything to Ptolemy's data, with the exception of the short account of Zermachus, who was sent by the Emperor Justinian to Dizabula in the year 564 A. D., and who went by the northern road across lake Balkash to Altai, and not by Aral as some authorities have supposed. At this time, however, in China the information about Central Asia received important augmentations, owing to the development of Buddhism.

The beginning of Buddhism in China must be assigned to the third century, but its final settlement there took place about 65 A. D., under the Emperor Ming-ti. Since Buddhism came to China from India, its first adherents, wishing to learn the tenets of the new faith at the fountain-head, naturally gravitated to India, either of their own free will, or at the command of their Emperors. The Buddhist missionaries, travelling to India through the wide and little known regions of Asia, recorded their experiences on their return, and these records form an immense, and in their own sphere, unique storehouse of knowledge of Turkestan, filling, as they do a period of 450 years, that is, up to the seventh century of our era. These sources of information have become accessible only in the most recent times, thanks to the efforts of our sinologists.

The oldest of the Buddhist missionaries, according to Grigorieff, was Dao-Dan; then Fa-Siam, who in the year 399 A. D. reached India across the Tarim basin; then Khia-Sin and Con-Yun, who, in the year 518 A. D., describe with some minuteness the plateau of Tsun-Lin—the Imaus of Ptolemy,—lying according to them, “half way between heaven and earth.” But, of all the travellers of this epoch, the first place belongs to the famous *Syuan Tsan (628-645 A.D.), who is still con-

* Or Hiouen Thsang.

sidered a saint in the East, and who holds with the Chinese the same position that Marco Polo holds with us. The journey of Syuan Tsan coincides with the beginning of the second period of Chinese power in the West.

After the powerful dynasty of Khan, internal troubles not only weakened considerably the Central Kingdom and caused the loss of its territory in Turkistan, but also diminished its power and glory in other directions. It was only in the year 619 A.D., with the commencement of the Tau Dynasty, that China again began to extend her dominions, again subdued Turkestan, and again entered into relations with the kingdoms of the West. Under the rule of the really great dynasty of Tau (619-906), China, in that second period of approach of the East and West, far surpasses the European States by its brilliantly developed civilization. At that epoch, while Europe was plunged in the darkness and strife of the Middle Ages, China could claim the title of the most illustrious State in the world; still earlier—certainly as early as the year 593—the Chinese were acquainted with the art of printing.

The famous Buddhist pilgrim, Syuan-Tsan, set out on his travels while still young; he was only twenty-six years old. He accomplished an immense journey across Asia and India, and on his return to China, he recorded the events of his travels in a book full of the most valuable information about the little known regions of Asia, a book which still retains its high value. Syuan-Tsan's account has become known in Europe, thanks to the excellent account of Stanislaus Julien and the commentaries of Vivien de St. Martin and General Cunningham with reference to India.

Syuan-Tsan set out from China privately, without the knowledge of the Emperor, and went by the northern road to Khamä, whence, to the south of Tian-Shan, past Tur-fan and Karashar, he reached Aksu. All these places, which have only quite recently become known to Europeans, Syuan-Tsan describes very correctly, indicating not only the character of the country and the products, but also the manners of the inhabitants. From Aksu he turned to the north, and crossed the snowy mountains of Muzart, or Mustag (Lin-Shan) on the eastern shore of the Lake Issyk-Kul (Tsin-Chi).

The passage of the lofty mountains of Must-tag was extremely difficult and dangerous, as "the eternal snows lying there hardened into great blocks of ice that melted neither in summer nor spring. Huge fields of hard and glittering ice stretched away endlessly and mingled with the clouds. Often the road led under overhanging precipices of ice, with snow pinnacles towering up on both sides, or wound along lofty glaciers," to quote the graphic picture of Grigoryeff. For

seven days Syuan-Tsan traversed these mountain, losing many of his fellow-travellers, who died on the ice. It is probable that this road traversed by Syuan-Tsan was the same as that taken by Chang Kien, seven hundred and fifty years before, on his way to the King of the Ussuns, whose city lay on the eastern shore of Issyk-Kul. Syuan-Tsan describes lake Issyk-Kul correctly enough; from Issyk-Kul he passed by the Buam gorge to Tokmak, and further on, across the Aulie-Ata to Tashkent (Tshe-chi). He describes Ferghana carefully, with its wonderfully fertile soil, and especially Samarkand (Sa-mo-kien), which was then a great commercial centre. He further records some observations of Khiva. From Samarkand he went across Shahrizabz to a narrow gorge known now as Derbend, or the iron gates, which bounded the kingdom of Tu-ka-lo or Tukhara. The original gorge of the iron gates is shut in by black cliffs, and on them, it seems as it were, hung gates of iron with bells.

Passing the Oxus, Syuan-Tsan came to the kingdom of Ta-mi (Tar-mez), where there were ten monasteries and a thousand monks. Across Balkh and Bamian, he came to India. His return journey, however, from India is still more interesting, as it lay through the celebrated district of the sources of the Amu-Darya, Pamir, even now very little known. Syuan-Tsan, crossing the Hindu Kush, probably by the Kavak Pass, reached the fertile Badakshan, intersected by valleys and mountains, in which gold was found. He mentions the hilly districts of Vakhan (Ta-mori-tie-ti), Shignan (Chi-khi-ni) and Chitral (Chang-mi), the inhabitants of which were wild and warlike.

From Badakshan Syuan-Tsan entered Pamir, which he called Pa-mi-lo, and which he describes in the following words: "Pa-mi-lo extends between two chains of mountains covered with snow. The winds howl day and night. The soil is full of salt. Vegetation is so scarce, that only here and there, at great distances, can you find any grass or a tree. In this wilderness you will not find a single human habitation." He went probably by Little Pamir, and the description of the "dragon lake," which some believe to be Lake Victoria, and others Kara-kul, is evidently from hearsay. From Pamir, Syuan-Tsan went towards Kashgar, by Sarycola. From thence, by Yarkand and Khotan, he returned to his native country, after sixteen years travelling in foreign lands.

Thus Syuan-Tsan accomplished a remarkable journey, considerable part of which refers to Turkestan. Among his contemporaries there is no one to compare him with, and even in later centuries Marco Polo alone can be put beside him. Syuan-Tsan may well be called the worthy son of his great country, and his narrative is the brightest page in the records of the Tau dynasty.

As noted above, the power of the Chinese in the West was greatly strengthened under the dynasty of Tau ; beginning with the Emperor Tai-tsunya (627 A. D.), to the second half of the eighth century, the Chinese considered themselves not only rulers of Eastern Turkstan, but even of Takharistan and the distant lands on the shores of the Caspian. This dominion was purely nominal, and collapsed entirely at the first shock of unfavourable circumstances.

The efforts of the Chinese to enter into relations with western nations met with no responsive movement on the part of the latter. From the second half of the eighth century, the Chinese, weakened on one side by disturbances in the government, internal rebellions, and quarrels with the Thibetans, and on the other by the advance of the Arab power along the valleys of the Syr and Amu Darya, again lost their hold on "Si-Yui," as they called their western dominions. To this period belong the genesis of Islam in the East, and the penetration thither of Christian missions ; consequently, from the eighth century, after the fall of the Chinese, the chief records of Central Asia are supplied by Christian missionaries and Arab writers ; but neither the one nor the other are distinguished by the wealth and variety of their information, and they add comparatively little to what we have learned from Syuan-Tsan and other Chinese sources.

The Christian missions always found in Asia a fruitful and wide field for their activity. Already in the fourth century of our era, there were Christian bishoprics in Persia and Mesopotamia ; and in the year 334 A. D., in Merve and Tuza, and there was even an archbishopric there in 420 A. D. In the sixth century (505 A. D.) the Nestorian patriarch had his residence in Samarkand, and missionaries spread all over that side of Pamir. In the year 638 A. D., the Emperor Taitzun permitted Catholic churches to be built in all towns. This liberty of the Christian missions was prolonged to the year 845 A. D., when they were everywhere expelled.

The adherents of Islam, the Arabs, in the years 714-715 A. D., under the leadership of Kutub-Ibn-Muslim, for the first time penetrated into Fergana, and began to strengthen their position in Turkestan, having made Samarkand the capital of Mavennagar. Their power to the eastward never passed Pamir.

The development of Arabian civilization attained its summit under the famous Harun-ar-Raschid (786-809 A. D.) and his son Almamun (813-833 A. D.), but, in spite of their high general cultivation and their rich literature, their geographical knowledge is limited to dry and brief descriptions of towns and roads. Thus Ibn Khordadbe gives information of several roads to China, and Ibn Dosta records certain data as to the course of

the Oxus. Of the same character are the facts recorded by the subsequent geographers, Istakhri, Ibn-Khankala and Edriz, Masudi is a little better informed ; he relates that to the north of the town of Kucha are found burning mountains where sal-ammoniac is collected ; a similar account is given by Edriz of Sogdiana, where, on the Botín mountains are found gold and sal-ammoniac. Makkadazi, in the last quarter of the tenth century ; Albiruni in the eleventh century ; Istakhri, Edriz and others, have given us adequate and accurate descriptions of Khavarezm, of the trade route along the Oxus, called by them Iei-Khun ; of Aral and its drainage ; of the extent of the steppes, and so forth ; but as regards the mountains of Turkestan, their information is so insignificant, that they give us a far less clear idea than the old Greek writers of the time Ptolemy.

Of direct explorers and travellers at that period, there were none amongst the Arabs, unless Abu-Dalefa in the tenth century be counted with others like him, who arouse the strongest suspicions as to the veracity of their narratives. But however small and incomplete are the records left by the Christian missionaries and the Arabs, they nevertheless have preserved the continuity of our knowledge of Asia.

Comparing the old Greek and Roman writers with the Arabs, we notice this difference between them, that, while the former, beginning with Herodotus, Aristotle, Quintus Curtius, Ptolemy and Strabo, give more reliable information as to the southern part of Turkestan, where Alexander of Macedon penetrated, and, after him, the Chinese as to Sogdiana, Transoxiana, and even Pamir ; as to northern Turkestan, and especially Aral and the lower waters of the Syr and Amu Darya, they have no accurate knowledge whatever ; on the other hand, the Arabs knew Khiva perfectly and the basin of the Aral, but had no clear notions of Pamir and Tian-Shan.

In the course of the epoch we have just described, Turkestan was at first under the dominion of the Chinese, and later, under the Arabs, whose civilization, after the fall of the Chinese power, that is, after the dynasty of Tau, reach a height of culture equal to, if not greater than, that of the Chinese. In a word, this was the epoch of the greatest intellectual life in Turkestan, which lasted for almost six centuries, counting from the beginning of the dynasty of Tau to the subjugation of Turkestan by the Mongols.

After this begins again a period of destructive raids of wild nomads. On the historical areas of Asia enter an entirely new people, who had up to then played almost no rôle in history. Already, in the eighth century, was known the rude and barbarous tribe of Khitan, living on the eastern border of Manchuria, on the river Lio, This tribe, gradually spreading, deve-

loped at last into a mighty dynasty, overshadowing the whole of Asia. It attained the summit of its power under its glorious prince, born on the banks of the Onon in the year 1162 A. D., Temuchin, or Chingis Khan, that is, the "great lord." Just as, in the first period, the Jioe-Chi annihilated the Græco-Bactrian civilization, so in the twelfth century, the invading hordes of Chingis Khan annihilated all traces of the Arabic civilization in Samarkand, and not only conquered all Asia, but spread terror through Europe as well. The rule of Chingis Khan extended from the Japanese Sea to the Euxine, from Kuen-Lun and the sources of the Huan-Ho to half of Siberia and European Russia.

After the death of Chingis Khan, in the year 1227 A. D., his son Ok-Kodai finally subdued all China, to the river Yan-tsi-Kiang; he founded the famous capital of the Mongol Khans, Kara-Korum; another son, Batu, or Batai, in 1237 A. D., penetrated far beyond the boundaries of Asia, into European Russia, and overran Hungary and Poland.

A similar devastating expedition was accomplished by Qulagu, the brother of Khan Mangu (1251-1257 A. D.), who passed to the south of the Caspian, overthrew Bagdad in 1258 A. D., and annihilated many cities near Egypt. In the year 1260 A. D., under Kublai Khan, the Mongolian Empire reached the summit of its glory, and stood already on the verge of disaster. About the year 1280 A. D., it fell into four pieces, one of which became the Khanate of Chagatai, with its chief town Almalik on the river Ili; within the bounds of this Khanate lay the whole Turkestan basin. Subsequently, about 1400 A. D., it came under the rule of the famous Timur, or Tamerlane, who inherited many talents from his ancestor Kublai. From the year 1368, that is, from the introduction of the Ming dynasty, the power of the Mongolians gradually declined, and at last completely lost its former greatness.

Thanks, on the one hand, to the wonderful union of all civilized Asia under Chingis Khan, and on the other, to the dependence of many kingdoms on him, at this time Asia became accessible to many travellers and ambassadors, who made their way to Karakorum, the capital of the mighty Khans. In this way, the Mongolian inroad, to a certain extent, although fitfully, preserved the continuity of our knowledge of Turkestan. Amongst the travellers of this epoch, are Chinese, Arabs, and even Europeans. Among the Chinese most worthy of note is Chan-chun, whom Chingis Khan invited to the frontier of India. In spite of his advanced years, Chan-chun accomplished an immense journey in the years 1220-1224 A. D. He went by Ulungur to Urumchi, near Tian-shan, whence he followed Chingis Khan's route by Samarkand to

the Hindu Kush, where he met Chingis. He describes the iron gates, the heaps of stones beside them, and the appearance of the mountain ; he gives some account of the Amu-Darya, of the reddish rock salt which is found in boulders on the mountains, of the salt stream, and of the high mountains,—all this on the road to Balkh,—that is, in the present Southern Bokhara.

There were other Chinese travellers besides Chan-chun, whose accounts are, however, much less reliable than his.

Amongst the Arabian explorers and travellers of this epoch, the first place belongs to Raschid-ed-Din (1247-1318), Abdul Feda (1273-1332) and Ibn Batuta (1304-1377). Of these, Abdul Feda is just such a compiler as Edriz was before him, but Ibn Batuta is a remarkable traveller, who, during more than twenty years, traversed almost all the then known world. He visited, amongst other places Khiva, Bokhara, Khorassan, and Kabul, and has collected for us much interesting information ; on the road from Samarkand to Herat he describes Termez, as a large and noble city, well supplied with vegetation and water. This city was first built on the bank of the Oxus, but when it was overthrown by Chingis Khan, a new city was built two miles from the river. Of Balkh he says, that after the inroad of Chingis it never recovered its prosperity. From Balkh he went to Herat, and thence to Kunduz and Baglan ; he mentions hot springs near the pass of Kholak and Tul, and the river Panjir taking its rise in the Badakshan mountains.

In this period considerable attention is deserved by the Europeans who penetrated Asia in different directions as travellers, or took part in the various embassies which, from the year 1245 A. D., on the initiative of Pope Clement IV, made their way to the court of the Mongolian prince.

These ambassadors, who have in many cases left descriptions of the countries they traversed, have thrown valuable light on their period of Asia's history. Planus Carpinus, who was present at the court of Batu-Khan (1246), described the manners and customs of the Mongols, and gathered the history of the spread of Chingis Khan's Empire. André Longumelle (1249 A. D.) and Wilhelm Rubruk (1252), better known under the names of Ruisbrok or Rubrukoiz, both followed the northern route. Rubrukoiz went from the Black Sea by the Kara Tan bridge, the rivers Talas and Chu, and traversed the valley of Il, and the lake of Ala-kul. He gives us information about the Nigurs and the main body of the Nestorians, who lived there openly. By this route came to the court of the Great Khan of Karakorum several of the western princes who were subject to him, amongst whom were the Russian Yaroslav and Alexander Nevski, and the Armenian Hetum. The descriptions of these latter are, however, very poor.

Of all the travellers of the middle ages, the Venetian noble, Marco Polo, gives the fullest and most reliable information about Central Asia. He traversed the whole of Asia, from Caucasus and Armenia to the Pacific Ocean. His knowledge is not less than Syuan Tsan's. His truthful account of his journey was so little understood by his contemporaries, and appeared to them so exaggerated, that before his death his friends tried to persuade him, for the peace of his soul, to deny certain portions of his narrative ; but the honest Marco Polo answered angrily, that not only had he added nothing, but he had not even recorded the half of the curious things he saw. It was only after many years that his book received general notice, and since then it has had numerous commentators. "One could hardly," says a great authority on China, "mention a single work in the Middle Ages which went through so many editions as Marco Polo's ;" unfortunately the commentators who edited Marco Polo, often failing entirely to understand him, confused his route, and thereby brought him into discredit.

This sometimes arose from the commentators' little acquaintance with Asia, and also because it is difficult to distinguish, in Marco Polo's account, what he saw himself from what he learned from others. Besides, to understand and comment upon Marco Polo's immortal work, is required a critic well acquainted with Asia, such as was the French authority Potier, who was the first to explain and thereby gain credence for Marco Polo's narrative. Quite recently, Colonel Yule has published an excellent commentary on Marco Polo's Travels.

At the present time, the readers of Marco Polo have come to place him, as a source of information, on a level with Alexander of Macedon, or Christopher Columbus, because, not less than these, he opened up a new world of knowledge. Whether this comparison be just or not, it must be admitted that Marco Polo's journey was an extraordinary achievement, and brought to Europe a vast store of information, which had an immense influence in the development of geography, and even now has not lost its scientific value. Marco's father and uncle, Nicola Polo, and Matteo Polo, had penetrated, in the year 1260 A. D., to Mongolia with a trading expedition, passing through Constantinople on their way. Their way lay by Khiva, Samarkand, Turkistan, and by the northern base of Tian Shan to Manas and Barkul ; that is, they went by the northern road, which from the times of the Mongol Empire, has played an important part in the relations of East and West, as the Southern Terek-Davan route did in early times, though it is now almost forgotten.

In 1269 A.D. Nicola and Matteo Polo, setting out on a second
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journey to Asia, took with them Marco Polo, Nicola's son, who was then only seventeen. On this second journey, they chose the route by Khorassan, Pamir, Kashgar, and Kotan. Marco Polo remained at the court of Kublai Khan for almost seventeen years, and, during that time, he was able to visit many different countries of Asia. He returned home in the year 1295 A. D., that is, after about twenty-six years. Marco Polo entered Turkistan from the west. He gives much interesting information about the city of Balkh, many times overthrown by different inroads. From Balkh he went towards the east, to the upper waters of the Amu Darya, through a desert as far as Han, where was found the city of Taikan or Talikhan, with a famous corn market. To the south of it were rich salt mines, known there even at the present time ; supplying with salt Badakshan, Kunduz, and Chitral. From Talikhan, after several days, Marco Polo reached Badakshan : on the road to Kesbin, he mentions shepherds who live in large caves in the mountains.

Badakshan he describes with considerable detail. Its rulers traced their descent from Alexander of Macedon : their country is rich and cold. He speaks of the ruby mines in the mountains, which he call Sighinan, and of the silver and lapis-lazuli mines. Nineteen days journey to the north or north east is found, according to Marco Polo, the small country of Vahan. On the road to it he saw many fortresses and houses. The inhabitants were Mahometans, proud, courteous, and skilful in the chase ; they were subject to Badakshan.

From Vahan, three days journey in the same direction, rose mountains to such a height that they were considered the highest in the world. There, between two ridges, he saw a large lake, with a beautiful stream flowing out of it, in the valley of which was found such excellent pasture, that the leanest of kine grew fat there in ten days. Here also were found many wild animals of strong appearance, as for instance, huge rams with enormous horns. "For twelve days," says Marco Polo, "the road continues through that valley, called Pamir (Pianura di Pamer), and in all that distance there is not a single habitation. All supplies we had to bring with us. Not a single bird flies there, by reason of the great height and the cold, and even fire does not heat the same there as elsewhere."

Thence he went to the desert country of Bolor, the inhabitants of which are wild idolaters, who dwell on the summits of the mountains, living by hunting, and clothing themselves in skins. From Pamir, Marco Polo went to Kashgar, Yarkand, and beyond. In the description of these places, he, like other contemporary writers, dwells on the large numbers of Nestorians who lived there openly. Besides the travellers we have mentioned under the Mongol rule, many Christian missionaries pene-

trated Asia, who were expelled in the eighth century, and many of them have preserved considerable information about Asia, as already noted.

The Nestorians and some Catholic orders like the Franciscans and Dominicans, on the authority of many travellers, not only lived freely among the Mongols, but even had churches in all the large cities, and were received at the Court of the great Khan : for example, Johan Montecrovino, returning to Rome, bears witness to the tolerance and even respect of the Mongols to the Christian religion. Montecrovino filled an important place at the Court of Kublai-Khan, lived there to extreme old-age (eighty-one) and died in 1328 A. D., respected alike by Christians and nomads. The same may be said of other Catholic fathers, such as, for example, Arnold of Cologne, Andreas, and others. But the most remarkable of them was the Monk Odoric von Pordenon, who accomplished a remarkable journey in Asia (1317-1330), and died on the way back in 1331. He was the only one of the travellers who reached Lha-ssa.

In the year 1368, the new dynasty of Ming ruled in China, under whom was broken again every link between Europe and Asia, so closely united under the Mongol Khans. From that time, and up to 1517, China gradually became weaker, and lay hid from the rest of the world behind the Great Wall. Chingis Khan's Empire lost all importance, and from its ruins in Turkistan was born a new power in the person of Timur (Tamerlane) and his conquering hordes.

Timur, like Chingis Khan, welded into a united whole the scattered tribes, and formed of them a powerful empire, with its capital at Samarkand, in the year 1369 A. D. The world-wide fame of Timur would seem to imply, as in Chingis Khan's case, a number of explorers, but probably the constant wars prevented this. Even Timur's relations with China left almost no mark on our knowledge of Turkistan. In the epoch of Timur we have only one traveller, the ambassador of Henry III of Castile, Rui Gonzales de Clavicho, and even he never went beyond Samarkand. Clavicho set out from Constantinople by the Black Sea, Armenia and Persia, to Balkh, whence, by Termez, the Iron Gates and Shahrizabz, he reached Samarkand. His narrative is especially interesting, because, in the year 1879, a Russian explorer followed Clavicho's route closely from Termez to Samarkand, so that we have the means of testing the Spanish traveller's account at every point. After a short description of the river Murkhab and the city of Balkh, Clavicho describes the Oxus, which he calls the Viadme, and says that it flows from Paradise and falls into the Caspian Sea. Advancing beyond it, he met with the considerable city of Termit (Termez) with a wealthy population, subject to Timur.

Going from Termit to the north, he describes a high mountain which can be crossed by a defile. "This defile seems as though made by human hands; on both sides rise very high mountains, but the defile is smooth and very deep. In the middle of this defile stands a village; this defile in the mountain is called the Iron Gates, and in all that chain of mountains there is no other pass but this."

Later on he reflects on the great importance of these gates, because they defended the kingdom of Samarkand, and brought to Timur a considerable revenue, as he levied a tax on all merchandise brought through them. Further on he says, that at the sea of Bakka (Caspian) there are other Iron Gates, at Derbend, which also belong to Timur, and are distant from the Iron Gates of Termez a thousand five-hundred miles. Clavicho accurately enough describes the appearance of the uninhabited mountains in which lie the Iron Gates, and relates that, in the narrow pass, once hung actual gates of iron, from which the defile has taken its name.

Speaking of the Bokhara steppes and the basin of the Amu Darya, he relates that "they are, for the most part, desert, covered with sand; wherefore the smallest wind carries the sand from place to place, and builds up whole sand-hills, which the next wind as easily carries away to another place. This sand is very fine, and the wind leaves ripples on it as on watered silk; it is impossible to look at it when the sun is shining; by this way it is only possible to go with guides." Water is found here only in wells. This description is very interesting, as it shows that, four-hundred years ago, the Amu Darya steppe had almost the same appearance as at present.

During his stay in Samarkand, Clavicho became well acquainted with that city and the Court of Timur, and describes both with considerable detail; more interesting, however, is his account of an interview with the Governor of the city of Balachia, which seems to be the present Badakshan. He reports the Governor to have said that, "not far from the city of Balachia is a mountain where rubies are found. Every day they break off a piece of the cliff to look for them, and when they find the mineral, they know how to separate it very cleanly; they take the stone in which the rubies are found, and little by little chip round it with an awl, till nothing is left but the ruby itself; which they then separate with sharp stones. The prince of Balachia relates that Tamurbek (Timur) set a large guard over the ruby works. The city of Balachia is at a distance of ten days journey, on the side of little India."

Clavicho saw another prince in Samarkand, besides the Governor of Balachia, who ruled over Akivi, "where they find lapis lazuli. In the same cliff from which they get the lapis

lazuli, they also seek for sapphires. From the city of Akivi to Samarkand is also ten days journey ; it also lies in the direction of little India, only Akivi is lower than Balachia."

In this way Clavicho, besides his general narrative, collects a good deal of very interesting information of this kind about the natural products of outlying districts.

From the time of Clavicho up to the eighteenth century, there is an almost complete cessation of exploration of Turkistan. This phenomenon is explained, firstly, by the devastating raids begun by Timur, and continued by Mahomet the Great, who conquered Constantinople (1453 A. D.), and Kapha (1474 A. D.) ; and secondly, by the fall of Timur's empire, which, after his death, separated into several States, forming subsequently the small Khanates of Khiva, Bokhara, Kokan, and so forth.

These Khanates all sunk more and more into a fog of ignorance and barbarism, which naturally was very unfavourable to the chances of travellers penetrating thither, and brought about a general decline of learning;—the more so, that Mahometanism, becoming despotic, taught its followers nothing but a fatalistic indifference and contempt of science.

Of the native writers of that time, (XVIth century) are remarkable only Sultan Baber, in whose writings are found much useful information about Fergana, Samarkand and the Hindu Kush ; and Abdul-Ghazi Bahadur Khan, the ruler of Khiva in the seventeenth century, who collects in his genealogy of the Tatar rulers, detailed information about the Amu Darya, Uzboi, Khiva, and, in general, the Aral-Caspian tract, which he has described with sufficient exactitude.

Finally, a third reason is to be found in the opening, by Vasco da Gama (1498 A. D.), of the sea route to India round the Cape of Good Hope, which resulted in extensive voyaging by sea and a great development of ocean-trade. From these reasons, the difficulty of penetrating Turkestan, on the one hand, and on the other, the great discovery, which attracted universal attention, distant Asia became almost entirely forgotten, with its old primitive caravan routes. Asia is known only through a few Christian missionaries and merchants, whose accounts are extremely meagre. To this general ignorance and apathy with regard to Central Asia, China was the only exception.

In the XVIth century, Turkestan was penetrated by Sadi-aliben-Hussein, but although in his four years of travel (1553 to 1556), he traversed Badakshan and Transoxiana, his information is of small value.

In the year 1559, the English merchant, Jenkinson, set out from the Caspian to Khiva on a trading expedition. His

journey, although its results were inconsiderable, still attracts attention, from the fact that it is our only source of information for that period, especially in relation to the Amu Darya question, which caused considerable attention to be paid to Jenkinson's narrative. Jenkinson went from Mangislak by Ustryut, and probably reached Sarikamysh, the town of Selynzor, Urgench, and Bokhara.

In 1603, Father Benedict Goës, in company with several merchants and monks, set out from Lahore, by Kabul, Badakshan, and Kashgar, to China. He evidently followed the same course that the English traveller, Wood, afterwards took. Unfortunately he died on the way without having time to complete his narrative; what we have of it is not very detailed, and in some places far from clear.

For further exploration of Turkestan, we are indebted partly to the Jesuits, who, under the Emperor Kan-gi, traversed almost the whole of the Chinese Empire; but chiefly to the Russians, who had, for a considerable period, held intercourse with their Asiatic neighbours. The Jesuits, between 1708 and 1718, accomplished a tremendous task, which bore fruit, in 1721, in a general map of the Chinese Empire. In pursuance of their work, they had reached Khama in 1711; and later on, in the eighteenth century, by command of the Emperor Kien-Lun, the Jesuits Espinah, Felix d'Arrocha, and Hallerstein made a map even of the western provinces of China, penetrating as far as Ili and Issyk Kul. Although the accuracy of these maps leaves much to be desired, still these Jesuits had the right to say, "that nothing had ever before been accomplished to compare with their work;" it is even true that, but for their exertions, China would remain even now for the most part a *terra incognita*.

D'Anville was the first to make known in Europe this earliest work of the Jesuits, by publishing his atlas of China, including all the territory to the Caspian. The maps of Espinah, d'Arrocha and Hallerstein, added the province of Ili and lake Issyk Kul. Although they are marred by serious faults, still the astronomical points determined by the Jesuits, and on which their map is based, served long as the only data for subsequent maps, not excepting even the best—Klaproth's map of Central Asia published in the present century.

As to Russia, her relations with Central Asia began at a very distant epoch, and have continued up to the present day. At the beginning of this intercourse, Russia traded freely with Asia; then, from the middle of the XIIIth century, that is, during the two centuries of Mongol rule in Russia, political relations were added to commercial. In the XVIth century, when the Mongolian yoke was thrown off, and the conquest of Kazan

was achieved, the influence of Russia in the East grew considerably. Thanks to Yermak and his Kazaks, Russian power extended rapidly in Asia. The different embassies from the Russian Tsars to the little-known countries of Asia, and Russian trading expeditions, on the one hand, and, on the other, the arrival of Asiatic merchants, could not but augment steadily Russia's geographical knowledge of Asia. It is unnecessary, and even impossible, to follow these journeys in detail, from the lack of systematic narratives; but we can form a general idea of the quantity and quality of the information they collected.

This general idea is given, in the first place, by the description of a map of the whole Muscovite Empire and the adjoining countries made in the XVIth century, and published by the Imperial Society of Russian History and Archæology, at Moscow, in 1846. The map itself has not come down to us, but the description has been printed several times. The Russian authorities say that the beginning of this description refers to the reign of John the Terrible, who "in the year 1552 ordered the land to be measured, and a map of the kingdom to be made." Under Tsar Boris Godunoff, in the last year of the XVIth century, the map was finished, and under the first of the Romanoffs, about the year 1627 A. D., the old map was destroyed. The necessity of a new map thereby arose, and to this new map the above mentioned description chiefly refers. It shows that, even in the sixteenth century, the Russians knew Turkestan, or at any rate its northern part, better than any one in Western Europe. In the description, the Blue Sea (Aral), is shown as separated by a distance of 200 miles from the Khvalinski (Caspian); the mountains of Airo (Mugojar) and Kara Tau, and the rivers of Yaik (Ural) and Uqus (Oxus) are shown with sufficient accuracy.

It is strange that this rich source of knowledge was quite unknown in Europe, where, for example, the existence of Aral as a separate sea was never dreamed of, and Aral was considered an arm of the Caspian, so that, in this case, Europe of the sixteenth century followed the old Greek writers, Herodotus, Aristotle, and Ptolemy, in spite of the excellent and accurate descriptions of the Arabian geographers of the tenth and eleventh centuries, who, as was shown above, undoubtedly knew that Aral was an independent basin.

During the seventeenth and eighteenth centuries, Russia continued her relations with Asia, through the medium of ambassadors and merchants; as for example, Barkoff (1654 A. D.), sent as ambassador from Tsar Alexei Mikhailoritch to Pekin, and, even earlier, Hakhloff (1620 A. D.), Griboff (1675 A. D.), Dandoff (1675), Shapkin, Iusup Kasimoff and others, who visited Khiva and Bokhara, and even penetrated to India.

A Tobolsk noble, Trushnikoff, in 1713 A. D., penetrated to lake Kuku-nor, and notes the discovery of gold there ; and Velyanoff, in 1718, reached the foot of Muzart, and the river Khorgos, in the Talkin mountains ; but the narratives of all these travellers are either not preserved, or are almost devoid of topographical information, so that they are more interesting to historians than topographers. We will therefore pass them over, and come to the time of Peter the Great.

Peter the Great, "opening windows to Europe on the Baltic and Black Seas, at the same time sought a key to the region of Asia, on the side of the Kirghese and Turkmen steppes," says the author of "Amu and Uzboi." With the object of penetrating into Asia, Peter despatched two famous expeditions in 1715: Bukholtz from Siberia, and Bekovitch Cherkasski from the Caspian. Unfortunately, these expeditions ended badly, and failed entirely to yield the expected results: but Peter was not thereby checked ; shortly after Bukholtz, he sent by the same road (1720) Likhareff, who reached Lake Zaisan-nor, and was the first to found a Russian fort on the river Irtysh. And although no new expedition was made from the Caspian along the road taken by Bekovitch, nevertheless, wishing to establish relations with the East by the great Central Asian river Amu, Peter instructed all his ambassadors in Asia to pay particular attention to it ; amongst these were Volynsky, the envoy to Persia, and Benevini who was sent to Bokhara in 1719 A.D.

As a result of all these efforts of Peter the Great towards the exploration of Turkestan, and especially the Amu Darya, appeared the first fairly accurate map of the Aral-Caspian territory, which made so considerable an impression at the time, that the French Academy elected Peter the Great a member, in recognition of its value. In 1723, Captain Unkovski published a map of Jungaria.

As is well known, many of those who took part in the Bukholtz expedition were taken captive by the Kalmucks ; amongst them was the Swede, Jean Renat, one of the prisoners of Poltava. He remained among the Kalmucks for 17 years (1716-1733). During this period, he was able to become thoroughly acquainted with Jungaria ; and, on his return to Europe, he made an exceedingly interesting map of Jungaria, with the adjacent parts of Eastern Turkestan and Siberia. This map, although not based on astronomical observations, nevertheless represents Jungaria better than d'Anville's well-known map of 1737 ; and, in several details, as for example, the contour of lakes Balkaso and Issyk Kul, it even surpasses Klaproth's map of Central Asia. It is greatly to be regretted that such an important geographical document was not made

known to the world earlier ; for it would doubtless have had a powerful influence on the development of our knowledge of an important region of Central Asia.

In the year 1730, that is, when Abul-Khair-Khan became a Russian subject, the Kirghese steppes became more accessible, and were traversed by both Russian and English explorers. Beginning with the dragoman, Mirza Tevkeleff, who accompanied Bekovitch, who crossed the Syr Darya in 1731, to the end of the eighteenth century, a whole series of travellers may be counted. Thus, in 1732, Colonel Ugrumoff, envoy to Galdan-Tseren, made a map of Jungaria ; in 1740, two Russian officers, Gladysheff and Muravin, were in Khiva, and collected certain data towards its cartography : at the same time two Englishmen, Thomson and Gough, followed the very interesting, and even now very little known, route to the south from Khiva to Kyzul-Kum, but unfortunately they have left little or no information.

In 1743 A.D. Major Miller made a very interesting journey to Lake Balkash, but we have no precise account of it. In 1753, the merchant, Rukavkin, set out for Khiva with a caravan. In 1777, Isleneff made a map of the river district of Irtysh, with the adjacent Kirghese steppe, inhabited by Jungarian Kalmucks. In 1793, Dr. Blankennagel reached Ustyurt by the Khiva route. Of all these travellers, the first place belongs to Ephremoff, whose travels in the Kirghese Steppe, Bokhara, Khiva, Persia, Thibet and India, contain much of great value.

In 1774 he was captured and carried a prisoner to Bokhara, where he soon gained officer's rank, and served the Bokharan Khan for several years, being sent to Persia, Khiva, and other countries. After some time, he escaped from Khiva to Kokan, whence he penetrated to Kashgar, Yarkand, and Thibet : from Thibet, through Kashmir, he reached India, and thence returned to England and Russia in 1782. Thus, although against his will, he accomplished an extraordinary journey, which has not since been repeated. In his narrative, he gives much interesting information about Khiva, Bokhara, the Kyzyl-Kum desert, the Amu Darya, by which he went from Bokhara to Khiva, escorting Abul Ghazi-Khan, the sands, the salt-springs, and the mountains. Amongst other things, he mentions two mountains near Khiva where silver and gold were found, discovered by a Russian prisoner who had accompanied Bekovitch, but the Khan, fearing the incursion of a foreign army and the subjugation of Khiva, ordered the mines to be closed, and put the discoverer to death. Ephremoff heard of this at Khiva. Crossing the river Ush, he saw near it a large hill with a mosque on it, and was told that, in former times, " Poyagambar (the prophet of Suliman—Solomon) rode thither on horseback, and prayed

in that mosque. In a word Ephremoff's account is worthy of respect, and constituted a considerable step in advance in the knowledge of Asia. It evidently attracted the attention of his contemporaries, as three editions were published ; lately, however, it has been rather overlooked.

Thanks to the efforts of Russian travellers, our knowledge of Turkestan began to grow with great and increasing rapidity, but nevertheless we can obtain little light on its natural history from their accounts. In this department, great interest belongs to the works of the academicians who, on the initiative of Catherine II, at the end of the last century, laid the foundation of the scientific exploration of Russia.

Falck, Pallas, Sokoleff and their colleagues not only collected a vast mass of material, but propounded many problems which still await complete solution : unfortunately, all these pioneers of Russian science, the worthy assistants of their great Empress, touch Turkestan only on its northern borders, and not one of them penetrated deep into Central Asia. Nevertheless they were the first to make us acquainted with the Aral-Caspian region, with its numerous salt lakes, its extensive salt beds, shifting sands, and original flora and fauna.

Rytchkoff, one of these academicians, gives the first reliable description of the Orenburg steppes, that stretch away to Turkestan ; and Pallas, considering the few facts at that time, showed wonderful penetration by his hypothesis that, the Aral-Caspian plain was, at a not very remote geological epoch, the bottom of a sea, of which the Caspian is a remnant. " This hypothesis," says Professor Bogdonoff, the reviewer of the Aral-Caspian exploration, " was too bold to be understood and appreciated at that time." Now, however, there can hardly be any doubt of its justice, since all subsequent observations more and more confirm it. This hypothesis was valuable not only for the light it threw on the development of Turkistan, but also, and even more so, for the new constructive method it exemplified.

Besides direct observations, some of these scientists collected much information about Turkistan, and especially about Bokhara, Muzart, Ili and Kashgar. Some of these accounts, such as for example, Falck's notes on the mines of Kara-Tau, the salt plains beside Lake Balkash, the existence of rock-salt on the river Kegen in Karkar and Bokhara, of the earthquake which destroyed the city of Aksu, of lapis lazuli in Badakshan, and so forth, were of the greatest use even to the most recent explorers.

Other notes, however, were less accurate, and only served as a basis for false views of the natural history of Turkistan. Such, for example, were the data of Sivers as to the volcanoes of

Eren-tau, Savra, in Zaisan-Nor, on the eastern border of Tarbagatai, and so on ; as also Falck's theories as to the volcanic cliffs, and volcanic traces generally, on Muzart and Mount Kholak, not far from the river Khorgos, which led Humboldt to form a perfectly erroneous hypothesis as to the volcanic character of Central Asia, which is still held by some authorities, in spite of clear proof to the contrary.

The discrepant accounts of Tianshan, and especially of Bogdola, led Pallas to construct a false system of the mountain ranges of Central Asia.

From this brief sketch of the history of the explorations of Turkistan from the earliest ages to the present century, it is evident that the progress of these explorations was entirely dependent on the changes of a political and historical character which have continually succeeded each other in Turkistan. Under the rule of cultivated races, this progress reached a high development ; when civilization gave way to barbarism, its development was checked.

The oldest accounts are those of Græco-Roman authors and Chinese, thanks to the fact that their dominions, in the first century of our era, stretched to the Caspian Sea. From the time of the inroads of the nomad Joe-chi and Ussuns, an absolute blank is left in our knowledge of Turkistan.

In the sixth and seventh centuries of our era, Chinese influence re-asserted itself, and their knowledge was continued, especially as a consequence of the journeys of Buddhist missionaries, pre-eminent among whom stands Syuan-Tsan (Hionen-Thsang). The Chinese, from the eighth century, were succeeded by a not less cultivated people, the Arabs. Their downfall in the twelfth century made a new blank in our records : but after the formation of the Mongol-Empire, various embassies, Christian missionaries, and travellers, penetrated Asia, the most noteworthy among whom was Marco Polo.

From the time of the fall of the Mongols, the old civilization of Turkistan never recovered, and progress in exploration came to an end : the last stage of the knowledge of Turkistan begins with Russia's political and commercial relations with it.

In the eighteenth century, Russia's acquaintance with Turkistan developed remarkably ; still, it was far from complete, as the best explorers and travellers of the time of Katherine the Great did not penetrate into the recesses of Turkistan, which, indeed, no scientific European did, from the time of Marco Polo, unless we except the unreliable results of Father Goës, Clavicho, and the merchant, Jenkinson.

Hence it is evident that, in spite of the extensive information of the Chinese, Greeks, and Arabs ; in spite of the wonderful

journeys of Syuan-Tsan, Marco Polo, and Ibn Batuta ; in spite of constant intercourse with Russia, our knowledge of Central Asia was, up to the beginning of the present century, partial, inaccurate, and imperfect ; and, if much had been done to open up the recesses of Turkistan, more remained undone, a legacy of work from the past to the present.

C. J.

ART. V.—“THE DARWINISM OF TO-DAY.”

1. Darwin's Works
2. Wallace on “Darwinism.” “Contributions, &c.”
3. Romanes' Mental Evolution in Animals.
4. Romanes' Mental Evolution in Man,
5. Weismann's Essays on Heredity. English edition.
(Clarendon Press).
6. Poulton's Colours of Animals, (International Scientific Series).
7. Numerous Essays and Reviews in *The Nineteenth Century* and other Periodicals.
8. Eimer's “Organic Evolution,” translated by Cunningham.

IN the quarter of a century which has elapsed since Darwin published his great work on the Origin of Species by means of natural selection, and the preservation of favoured races in the struggle for life, a generation has grown up to which the views which startled the world of 25 years ago, are as familiar as household words. Darwin wrote for a generation which had not accepted evolution, and which thundered anathemas at any one daring enough to disbelieve in the independent creation of every species, as supposed to be laid down in the books of Moses. Now the united labours of many men of science have established the theory of descent as the only conception of the development of the organic world which is scientifically tenable. By the light of this theory many facts receive for the first time a meaning and a significance, and can be harmoniously grouped together. It has also yielded the highest results that can be expected of any theory,—in that it has rendered possible the prediction of facts—*e.g.* that man, who possesses but twelve ribs, would be found to have thirteen, or fourteen, in the embryonic state. This prediction has been fulfilled—just as the astronomer predicted the existence of the planet Neptune from certain disturbances observed in the orbit of Uranus.

The wonderful, careful, and unbiased investigations of Charles Darwin have not only indicated the route, but carried us far on the road over which research must travel before it can unravel that mystery of mysteries, the origin of the transformation of species. But our knowledge on this point has not ended with Darwin. Already we have arrived at ideas which are incompatible with certain important points in his general theory, and which necessitate some modification of it.

It is well known that, long before Darwin's time, Lamarck had attempted to penetrate into the mechanism of the process of evolution and to ascertain the causes by which it is produced. His views were, to a certain extent, accepted by Darwin, but it was due to the labours of the latter and of Wallace, working independently, that the new and extremely far-reaching principle of natural selection was promulgated. This great principle gave a clue to the labyrinth of confusing facts and observations which had been previously collected. It has done as much for the advancement of biology as the spectroscope has for that of astronomy.

Before going further, it may be confidently stated, that the result of the last quarter of a century's work has been to establish and illustrate the overwhelming importance of natural selection over all other agencies in the production of species.

It should always be remembered that this principle is only a theory ; but some such theory is necessary. The time has long passed away in which men believed that science could be advanced by a mere collection of facts. It is necessary to establish facts which, when grouped together in the light of a theory, will enable us to get a certain degree of insight into some of the phenomena of nature. Science has often been compared to an edifice which has been solidly built up by laying stone upon stone, until it has gradually risen to greater height and perfection. But this metaphor overlooks the fact that the building does not at any point rest upon the ground, but remains floating in the air. All sciences have begun by building in mid-air, and have slowly worked downwards. Even physics has not yet reached the foundations. It is still very uncertain as to the nature of matter and force. We cannot, indeed, begin by the investigation of ultimate causes, because at this very point our means of reasoning stop short. We must proceed analytically and inductively, from above downwards.

A German biologist more correctly compares the progress of science to a mining operation for the purpose of opening up a freely branching lode. Such a lode is not attacked from one point alone, but from many at the same time. From some points we quickly reach its superficial parts, from others the deep-seated ones ; but from every point, knowledge is gained of the complex general characters of the lode. Science is impossible without hypotheses. They are the plummets with which we test the depth of the ocean of unknown phenomena, and determine the course to be pursued on our voyage of discovery.

Let us here briefly recall Darwin's theory, before we proceed to the discussion of the details in which modern research differs from his views. We shall best do this by giving a synopsis of Mr. Wallace's first chapters on "Darwinism."

The theory of natural selection rests on two main classes of facts, which apply, without exception, to all organised beings, and which take rank as fundamental principles or laws. The first is the power of rapid multiplication possessed by all animals; the second, that the offspring always varies slightly from the parents, though very closely resembling them. From the first law there follows necessarily a constant struggle for life, because the offspring always exceed the parents in number, yet the total of living organisms in the world does not, and cannot increase year by year. Consequently, every year, on the average, as many die as are born, and the majority die prematurely, by violence, cold, heat, rain, storm, flood or fire. Then comes the question,—why do some live rather than others? If all individuals were exactly alike, we could only say it was a matter of chance. But all are not alike. They vary in many ways: some are stronger, some swifter, some hardier, or more cunning; some possess obscure colours which render concealment from their enemies easy, others have keener sight, better enabling them to seek or escape from enemies. On the whole, it is the *fittest who survive*.

Another important principle is the transmission and accumulation of these variations by heredity. This has been done, in the case of domesticated plants and animals, by man, from time immemorial. Every one admits and knows what has been done in the case of horses, dogs and pigeons, in the way of breeding. Every breed which possesses any exceptional quality or characteristic, is the result of the selection of variations occurring from generation to generation and accumulated. This is called artificial selection. The same thing occurs in nature, and is called natural selection. In this the test for selection is utility. If a variation which occurs spontaneously is useful, if it in any way renders its possessor better fitted for the struggle for life, it will be perpetuated, because such an animal or plant will survive and will be able to produce offspring which will inherit the tendency to variation in this particular way. These variations accumulated and transmitted through long ages, have resulted in the different species of plants and animals. Darwin also added the principle of sexual selection, to explain the wonderful colours of male birds and many other points which will be discussed further on. As an adjunct to these two principles, he considered that the modification of species "was aided in an important manner by the inherited effects of use and disuse." This is an important question which leads us further than appears at first sight, and will be fully examined hereafter.

Having thus briefly sketched Darwin's theory, let us proceed to the points or details in which recent research has extended, or broken away from his views.

Omitting for the present all consideration of what may be called the retrograde school, or Neo-Lamarckians, we will mention the points which justify us in giving the name of Neo-Darwinians to certain observers who have both extended and modified the original theory.

To take Mr. Wallace first. In his latest work he differs from Darwin in minimising the theory of sexual selection, and giving a different explanation of the meaning of sexual differences in colour, &c. He also differs in an important manner in his views on the origin of the intellectual and moral faculties in man. But the most important and far-reaching work which has been done in biology since the publication of Darwin's own books, is that of Prof. Weismann, of Freiburg. His new views on the subject of heredity must be considered revolutionary. They upset so many views that have hitherto been regarded as facts, that a full consideration of them is necessary. It must be remembered, however, that they too tend only to extend and emphasise, as we said before, the great importance of Darwin's theory of natural selection.

The problem of heredity is one which many minds have tried to solve, but hitherto with small success. Its phenomena are not in their nature incomprehensible. It is the great complexity of the subject which has rendered it hitherto insuperable, and makes it especially difficult, in a brief space, to give an adequate account of it.

Heredity, in its common acceptation, may be defined as that property of an organism by which its peculiar nature is transmitted to its descendants. From an eagle's egg an eagle of the same species develops. Not only are the characteristics of the species transmitted to the next generation, but even the individual peculiarities. The offspring resembles its parents among animals as well as men.

It is well known that Darwin attempted to explain the phenomena of heredity by the theory of pangenesis. But he put it forward only as a purely provisional solution, which did not claim to be more than tentative. In reality pangenesis was a modern revival of the oldest theory of heredity, that of Democritus.

We must now try briefly, and as simply as possible, to explain Weismann's views on this subject. It is difficult for any one not versed in embryology to follow him completely. He begins by asking how it is that a single cell of the body can contain within itself all the hereditary tendencies of the whole organism. To this question he considers only two answers physiologically possible. First, either that the substance of the parent germ-cell is capable of undergoing a series of changes, which, after the building up of a new individual, leads

back again to identical germ-cells, or, secondly, *the germ cells are not derived at all, as far as their essential and characteristic substance is concerned, from the body of the individual, but they are derived directly from the parent germ cells.*

The latter he believes to be the true answer. He has called this "The theory of the *continuity* of the germ-plasm;" for it is founded upon the idea that heredity is brought about by the transference, from one generation to another, of a substance with a definite chemical, and above all, molecular constitution. This substance he calls the germ-plasm. He assumes that it possesses a highly complex structure, conferring upon it the power of developing into a complex organism.

He explains heredity by supposing that in each birth *a part* of the specific germ-plasm contained in the parent egg-cell, is not used up in the construction of the body of the offspring, but is reserved unchanged for the formation of the germ-cells of the following generation. Hence heredity becomes merely a question of growth and assimilation.* As the germ-cells of successive generations are thus directly continuous, and form, as it were, only different parts of the same substance, it follows that these cells must, or at any rate, may, possess the same molecular constitution, and that they would therefore pass through the same stages of development and would form the same final product.

From this it follows that the transmission of characters acquired in one individual's lifetime is an impossibility, for if the germ-plasm is derived from that which preceded it, its structure and its molecular constitution cannot depend upon the individual in which it happens to occur, for the individual forms as it were only the soil in which the germ-plasm grows, while the latter possessed its characteristic structure from the beginning, *i. e.*, before the commencement of growth. But the tendencies of heredity depend upon this very molecular structure; hence only those characters can be transmitted through successive generations which have been previously inherited, *viz.*, those characters which were potentially contained in the structure of the germ-plasm. Therefore, other characters, acquired by the influence of special external conditions during the lifetime of an individual, cannot be transmitted at all.

Before going further, it is necessary to clear the way by determining exactly what is meant by the term acquired characters. The misunderstanding of this term has done much to add to the delay in appreciating the full force of Weismann's theories. Only those characters should be called "acquired" which first appear in the body itself, as opposed to those which owe their appearance to variations in the germ. The former

* Essays, English Ed. p. 816.

Weismann proposes to call *somatogenteic*, the latter *blastogenetic*. The former cannot be transmitted. They include not only the effects of mutilation, but also the changes which follow from increased use and disuse, and those which are directly due to nutrition, or any other external influences acting upon the body. Among blastogenetic characters, we include all the changes produced by natural selection operating on variations in the germ. Thus, spontaneous characters as extra fingers, toes, patches of grey hair, moles, &c, can certainly be transmitted.

Up to the present time it has been assumed, as a matter of course, that acquired characters are transmitted. In fact, this unproved hypothesis has assumed the character of an axiom; but in reality it is only deduced from the facts it attempts to explain.

Individual variability forms the most important foundation of the theory of natural selection; without it the latter could not exist. How, then, can we explain such variability consistently with the belief in the continuity of the germ-plasm, which implies the rejection of the transmission of acquired varieties? Weismann believes such an explanation is to be found in the form of reproduction by which the majority of organisms are propagated; *viz.*, sexual reproduction. This process consists essentially in the coalescence of two distinct germ-cells, or their nuclei. These germ-cells contain the germ-plasm, which is the bearer of the hereditary tendencies of the organism; and in sexual reproduction two groups of hereditary tendencies are combined. We must now go further back. It is known that, before an egg is ready for fertilization, it has thrown off, or expelled, two nuclear substances, called "polar bodies." With the first we are not here concerned, but the second polar body is of immense importance. It is to be remembered that in each egg there is a great accumulation of hereditary tendencies, as there is also in each sperm cell. Therefore, when these two are united, there is a double combination of such tendencies; but, as, even in the short space of ten generations, there are in the offspring no less than 1,024 such tendencies, it is obvious that such a minute subdivision of the continuous germ-plasm could not continue for ever; hence this is avoided by the expelling of the second polar body from the ovum and a similar reduction in the sperm cells. Therefore, at every coalescence of these cells, the number of ancestral units is reduced to one-half in each. But in such a complex body as the nuclear substance of the egg-cell, composed as it is of innumerable different molecules, it is hardly conceivable that it could ever divide twice in the same manner; hence the germ-cells of the same mother cannot contain exactly the same hereditary tendencies, and therefore the offspring of the same

mother can never be identical;* that is, each must possess some hereditary individual difference. In this way we arrive at an origin for hereditary variability upon which natural selection can work.

Let us now return to the question of acquired characters. It is well known how Lamarck imagined that he explained the transformation of species. He taught that a change in the structure of an organism was chiefly brought about when the species met with new conditions of life, and was thus forced to assume new habits. Such habits caused increased or diminished activity, and therefore a stronger or weaker development of certain parts, and these modified parts were then transmitted to the offspring. This would be further increased each successive generation, until the greatest possible change had been effected. Thus, he attributed the great length of the neck of a swan, or similar animal, to the habit of stretching after food at the bottom of the water. In a similar way, the long neck of the giraffe, or the webbed feet of water-birds were acquired. Thus also he explained the disappearance of a part after it had ceased to be of use, *e. g.*, the degeneration of the eyes of animals inhabiting dark caves, or the sunless depths of water.

So much was taken for granted; but, except in the case of mutilations, no attempt was made to prove the assumption. But if we grant the truth of Weismann's theory, it must be able to explain these facts in some other way. This we can do as follows: In the first place we may urge that, if an organ becomes stronger by exercise, it must possess a certain amount of importance in the life of the individual, and if so, become subject to improvement by natural selection. But the perfection of an organ depends primarily and principally upon the fact that the germ from which the individual arose was predisposed to produce a perfect organ. We cannot, by feeding, make a giant of a germ destined to become a dwarf, nor by exercise transform the muscles of an individual destined to be feeble into those of a Hercules, nor the brain of a predestined fool into that of a Newton or a Darwin. The increase of an organ in the course of generations does not depend upon the summation of exercise taken during single lives, *but upon the summation of more favourable predispositions in the germs.* When any change in the environment compels any organ to be more largely used, each individual will endeavour to accommodate itself to the best of its power. How far it can do so, will depend upon the predisposition of the germ, so that *natural selection*, while apparently it decides between individuals of various strengths, *in truth operates on the stronger and weaker germs.*

* Except, perhaps, in case of twins, when derived from a single ovum.

To take next the cases of atrophy after disuse. This, again, is a case of utility and natural selection. Darwin himself has shown how it is an advantage for certain beetles in the Island of Madeira to have lost their wings. This degeneration would be favoured by natural selection. Thus, too, can be explained the loss of limbs by snakes, &c., which live among narrow holes and clefts. But when the degeneration of disused organs confers no benefit upon the individual, the explanation becomes less simple, *e. g.*, the eyes of animals which inhabit dark caves (insects, crabs, fish, amphibia, &c.) have degenerated, but these could live quite as well in the dark with well developed eyes.

This brings us to an important aspect of natural selection, namely, the power of conservation exerted by it. Not only does the survival of the fittest select the best, but it also maintains it. Its continued action maintains, for example, the keenness of sight in birds of prey; for any individual born with less keen sight would always be at a disadvantage compared with its fellows, and could not, in the long run, escape death from hunger. But suppose such birds were compelled to live in a dark cave; the quality of the vision would then become immaterial, and when weaker eyes arose from time to time, these also would be transmitted, for their imperfection would bring no disadvantage to the owner. Hence, by the crossing of individuals of varied degrees of sight, the average of perfection would slowly decline. Another factor, too, is to be considered—what Roux has called "the struggle of the parts in an organism." Cases of atrophy after disuse appear always to be attended with a corresponding increase of other organs—blind animals always possess well developed organs of touch, hearing, and smell; the degeneration of the ostrich's wings is accompanied by increase in the power of the legs. Thus the cessation of the action of natural selection on useless organs will tend to make them degenerate, whereas the action of this principle on useful organs, while it increases them, must further tend to reduce the disappearing structure, as the latter take the place and nutriment of more useful and important parts. The predisposition towards the weaker development of a useless part is thus advantageous, and natural selection would act until the germ had lost all tendency to the development of the organ in question. The extreme slowness with which this process works is shown by the persistence of rudimentary structures.

This suspension of the conserving influence of natural selection is called Panmixia by Weismann. It is closely akin to the law called by Galton* "Regression towards mediocrity."

*In fact, Galton, by a very similar theory of heredity, long ago anticipated many of Weismann's views; notably he denied the transmission of acquired characters.

To apply the principle further, take the case of the short sightedness so common among modern nations. This, too, has been explained as an example of the transmission of acquired changes, but we must remember that the refraction of the human eye has long been independent of natural selection. Myopia does not prevent a civilized man from earning a living. These fluctuations on either side of normal vision are due to the same cause as operates in producing degeneration of the eyes of cave-dwelling animals. Where in some families myopia is hereditary, it is due to an accidental predisposition on the part of the germ. Besides, it is probable that a large number of short-sighted people have acquired it for themselves. Again, the well-known greater variability of domesticated animals depends essentially upon this principle. A duck, or a goose, must possess strong powers of flight in the natural state; but when it is brought into a poultry yard, the rigid selection of birds with well developed wings is no longer needed, and deterioration must of necessity ensue.

A more difficult case arises when we consider the origin of those predispositions in men which we call talents, such as a gift for music, painting, mathematics, &c. These cannot have arisen through natural selection, because life is in no way dependent upon their presence. It would almost seem necessary to consider such talents as the summation of skill transmitted from parents to offspring. But these talents are not due to any special organ in the brain, they are rather complex combinations of many dispositions. There is absolutely no proof that such talents have improved by exercise through a series of generations. The Bach family show musical, the Bernoulli family mathematical, talent through several generations; but in both families the high water mark does not lie at the end of the series, but in the middle. Again, such talent often appears in some single member of a family which has not been previously distinguished. Gauss was not the son of a mathematician. Handel's father was a surgeon. Titian's family were lawyers, and he and his brother were succeeded by a line of painters with gradually diminishing ability. These talents rather consist in a happy combination of exceptionally high gifts, developed in one special direction, probably aided by the crossing of the mental dispositions of both parents. Such combinations of high mental qualities often develop in different ways in one family. The same family has produced a distinguished jurist, a remarkable philosopher, and a highly gifted artist. One Mendelssohn was a distinguished philosopher, the other the musician. Again the *Zeitgeist*, or time-spirit, often determines a wide-spread appearance of a particular talent. History teems with such instances, *e. g.*, the poets and artists

of the Periclean age in Athens, or of the "spacious times of Queen Elizabeth," the numerous German philosophers who followed Kant. Many of our great modern names in science, had they lived at other times, would probably have been great poets or philosophers. A great artist is always a great man; if he finds the outlet for his talents closed on one side, he forces his way through the other. It is also to be remembered that in modern life it is a man's intelligence which chiefly serves him in his struggle for existence.*

We must now turn to those cases in which the supposition that acquired characters can be transmitted, is claimed to be proved. It is very important to investigate this, for if mutilations can be proved to be transmitted, *à fortiori* other characters may also be. First to be considered are the celebrated experiments of Brown-Séquard on guinea-pigs. In these he showed that the descendants of certain animals, in which he produced artificial epilepsy, in some cases inherited the disease from their parents. Some symptoms of the disease were undoubtedly transmitted. The question is too long to be here discussed, but in this case we are probably dealing with a communicable disease caused by microbes which find their nutritive medium in nervous tissue, and bring about the transmission of the disease by penetrating the ovum, or spermatozoon. In this way it is probable that syphilis and tuberculosis are transmitted, and indeed *such transmission has been rigidly proved* in the muscardine disease of the silk-worm.

Let us next consider a few of the cases which have been brought forward to prove that mutilations can be transmitted. In 1887 certain cats with rudimentary tails were shown in Weisbaden, whose mother *was said* to have lost her tail by a wheel having passed over it. Professor Eimer considers this a "valuable" instance. But not only is there no proof that the mother cat really lost her tail in the way mentioned, but the father was absolutely unknown. Besides, tailless cats are known to exist in the Isle of Man. In another similar instance of tailless kittens, the phenomenon was traced to the introduction of a male Manx cat brought to the district by an English lady. Again, in dogs, a spontaneous reduction in the length of their tails is not uncommonly found. This has been attributed to the common practice of cutting their tails when young. Further investigation of these cases shows that they are mere monstrosities, like rudimentary fingers or toes, which not seldom appear. Besides, in these dogs the shortness is due to ankylosis, or absence of

* This question of talents is again referred to below, and Mr. Wallace's explanation is given at length.

caudal vertebræ along the whole length of the tail, and is not confined to its distal extremity, or tip. Such a disposition in the tails of dogs or cats to become rudimentary may be explained by the above-mentioned process of Panmixia. No dog or cat would perish because it had an imperfect tail. In those cases where the tail is a special ornament (in setters, pointers, &c.) this has been effected by artificial selection. How the Manx breed originated is not known to history. It is conceivable that it was produced by artificial selection, as has been done to a great extent in Japan, where short-tailed cats are highly prized. Further evidence against such transmission is furnished by the crucial test of experiment. Weismann amputated the tails of white mice, both parents, for five generations. Not a single example of a rudimentary tail appeared in nine hundred young. This, though merely negative evidence, certainly strengthens his position.

Certain well known mutilations which have been practised from time immemorial by certain nations may be briefly dismissed—such as circumcision, the removal of front teeth, the boring of holes in the lips or nose, the distortion of the feet of Chinese women. Not the slightest trace of such mutilation is possessed by any child of these nations at birth. In conclusion, it will be found, on strict investigation, that there is not a single case to prove that such acquired characters as mutilations can be transmitted.

Having thus, briefly and as simply as the complexity of the subject permitted, shown the extent to which Darwin's theory has been modified, and his main principle of natural selection extended, by the researches of Weismann into the nature of heredity, the opposite school of Neo-Lamarckians may be briefly disposed of. It is headed by Professor Eimer, whose work on Organic Evolution has lately been translated into English. The divergence of the views of Weismann and Eimer is of the greatest. Eimer advocates and extends Lamarck's views on the differentiation of species by means of the very principles (transmission of effects of use and disuse, &c.) which, we have seen, are, according to Weismann's views, utterly untenable. While the views of the latter tend to widen the application of natural selection, those of Eimer narrow its action to the utmost. The tendency of opinion among naturalists, since Weismann's views have become known, is greatly in his favour.

We will now consider another departure from the Darwinism of 20 years ago. This step has been taken by the joint discoverer of the theory of natural selection, Wallace. It is not new. He has advocated it for years past, but attention has recently been called to it by the publication of his

work, "Darwinism,"—an excellent resumé of the theory of natural selection. The question in dispute is how far, what Darwin called "sexual selection," is capable of explaining the extent and beauty of colour and ornament in the animal kingdom.

It is well known that Darwin devoted a large part of his work on the "Descent of Man" to this subject. He imputed many of the brilliant colours and varied patterns of birds' feathers and butterflies' wings to the constant preference by the females for the more brilliant males. Under the term sexual selection, two sets of characters are to be distinguished. These have been called primary and secondary characters. To the former belong those characteristics of exceptional size, strength and activity in the male, and certain special offensive and defensive weapons. It is a very general fact that, among the higher animals, the males fight together for the possession of the females. This leads to the fittest animals becoming the parents of the next generation, and to the production of such offensive weapons, as the horns of a bull, the tusks of a boar, the antlers of a stag, and the fighting qualities of the game-cock. This form of sexual selection is a real power in nature. Darwin extended this principle into a totally different field of action, when he attributed the origin of secondary sexual characters to the agency of female choice. To this æsthetic feeling of the females, he traced the origin of such characters as the ornamental crests and accessory plumes of birds, the stridulating sounds of insects, the crests and beards of monkeys and other mammals, and the brilliant colours of butterflies. He even attributed the sometimes bright colours of females to the fact, that such variations are sometimes transmitted to both sexes. Unfortunately for this theory, there is little or no evidence that the female does exercise any *æsthetic* preference. Space does not permit us to touch on the fascinating subject of the origin and use of animal colouration; but, for the understanding of what follows, we must briefly state into what classes the colours of animals have been grouped.*

The most important colours are those which are protective, by harmonising with the habits and surroundings of the animal possessing them, enabling them thus to escape from their enemies. Another class are those colours or markings which enable the individuals of a species quickly to recognise their fellows,—“recognition colours.” Others, again, are called “warning colours,” because their very conspicuousness serves to warn enemies that they are in possession of some deadly

* For full details, *vide* Poulton's little work in the "International Scientific Series." He supports Darwin's views.

weapon, or poison fang, or are inedible, and so not worth attacking. Allied to these, is the strange phenomenon of *mimicry*, which is very common in nature. Mimic colours are those assumed by harmless insects in order to look like dangerous ones, and so frighten their enemies away, or, as when a spider appears in the harmless colour and form of a fly, enabling it to seize more easily its unsuspecting prey.

To return now to where we left off. In comparing the colors of the two sexes, we find a graduation from absolute identity to extreme difference. Taking an extreme case, let us quote Wallace's description of the male "birds of paradise."* "The Paradiseidae are a group of moderate sized birds, allied in structure and habits to crows and starlings, but characterised by extraordinary developments of plumage. . . . In several species large tufts of delicate, bright coloured feathers spring from each side of the body, forming trains, fans or shields. . . . elongated into wires, twisted into fantastic shapes, or adorned with the most brilliant metallic hues. These splendid ornaments are entirely confined to the male sex. While the female (of *P. apoda*) is really a very plain and ordinary bird, of a uniform coffee brown colour, which never changes, nor does she possess a single green or yellow feather about the head in the male this complete plumage is retained the whole year, except during the moulting time." Among insects we find sexual differentiation of colour only in a few orders, especially in the great order of *Lepidoptera* (butterflies and moths). In this case the obscure colour of the female is protective, being necessary to avoid attracting attention while flying slowly along to find a plant in which to deposit its eggs. Some, too, of the bright colours of male butterflies are probably recognition colours. Among fishes, reptiles and mammalia, the general rule is for the two sexes to be alike, but among about half the known species of birds, a diversity of sexual colouring exists. In some it is merely in intensity; but in tropical birds, most remarkable divergence of sexual colouring is found, as in the birds of paradise, peacocks, humming birds, pheasants, &c.

The explanation of the duller colours of female birds is found in their nestling habits. To perpetuate their species, the females have to sit assiduously on their eggs. While so employed, it is of vital importance that they should not be exposed to their numerous enemies. Therefore their dull colours are useful. That such a relation between colouration and nestling habits exists, is shown by the fact that in many species both sexes are brilliantly coloured. In such cases the nest is either built in

* Malay Archipelago, chapter 38.

the ground, or domed or covered so as to completely conceal the sitting bird. Here protective colours are unnecessary. Such birds as jays, crows, hawks, &c., do not need protection, as they themselves are the aggressors. Another apparent exception helps to prove the rule—in a few cases it is the male who is soberly coloured and the female is the stronger, more pugnacious and more brilliant. In these rare cases it is the male who sits on the nest. One fact must be admitted, on which Darwin has laid great stress, that is, the display of decorative plumage by the males during the breeding season. It is probable, too, that the female is pleased by the display; but it by no means follows that minute differences in colour and pattern will cause her to prefer one male to another. During excitement, when an organism develops superabundant energy, many animals find pleasure in exercising their plumes in various fantastic ways. This is done alike by ungraceful birds like vultures, or the unwieldy albatross, and the beautiful peacock, or bird of paradise. Rejecting, then, Darwin's theory of female choice, Mr. Wallace attempts to explain the origin of these secondary sexual characters somewhat as follows:—Mr. Taylor has called attention to an important principle, *viz.*, that colour follows the chief lines of structure, and changes at points, such as joints, where function changes. Colour has arisen over surfaces where muscular and nervous development is considerable. Mr. Wallace then shows that ornamental plumage arises from parts of the body where there are strong muscles and plentiful nervous and blood supply. Again, birds which display such plumage are always vigorous and active, and possess a surplus of vitality which manifests itself in the development of accessory plumes. Such plumes as those of a peacock, or bird of paradise, must be injurious rather than useful in ordinary life. It is only a few species which have acquired such plumage. It is an indication of complete success in the battle of life, of perfect adaptation to the conditions of existence. If it is true that such plumes are due to surplus vitality, then natural selection will aid the process, for the most vigorous, defiant and mettlesome males are those which most attract the females, and will transmit their vigour to their descendants. These erectile feathers may also be useful in making the bird more formidable in appearance, but only as an expression of the vigour which lies beneath. Wallace also maintains that the rigid action of natural selection will cause any attempt to select mere ornament, unless also useful, utterly nugatory.

Having thus shown the theory of Darwin shorn of its appendages—the effect of use and disuse and of sexual selection—we have also shown how the theory of natural selection stands out

in fuller relief as the great agent in producing the modification of species.

We now come to the most striking and interesting feature of Mr. Wallace's work, from what may be called the *human* point of view. This is his denial of the application of the principle of natural selection to the evolution of the human faculties. No portion of Darwin's work caused such excitement and interest as his views on the Origin and Descent of Man. To this day there exists in the popular mind a grotesque misinterpretation of his views. But the vast majority of those who have studied the subject, accept Darwin's conclusion as to the essential identity of man's bodily structure with that of the higher mammalia, and his descent from an ancestral form common to man and the anthropoid apes. Darwin went further than this: he derived also the moral and mental faculties of man from their rudiments in the lower animals. Mr. Romanes, by his theory of *physiological selection*, attempted to bridge over the enormous interval which now separates the two divisions of mind, man's and brute's. Mr. Wallace long ago considered that this conclusion was not supported by adequate evidence, and was directly opposed to many well ascertained facts. Darwin's first argument in support of his position was that of continuity. He showed that the rudiments of most, if not all the mental and moral faculties, can be detected in animals. To what an extent this is true, Mr. Romanes' great work is evidence. Darwin then showed how little advanced these faculties appear in the lowest savages. He traced to the social instincts of the tribe the foundation of a moral sense. But, says Mr. Wallace, even granting this progressive development and continuity from animals to man, this does not prove what Mr. Darwin wanted,—that they were developed by the aid of natural selection. "*It is not to be assumed that the later stages of an apparently continuous development are necessarily due to the same causes only as the earlier stages.*" Applying this argument to the case of man's intellectual nature, Mr. Wallace shows that certain definite portions of it could not have been developed by variation and natural selection alone, and that, therefore, some other influence, law, or agency is required to account for them. He goes on to discuss the mathematical faculty. It is almost unexercised and almost absent in the lower races of man. It is only within the last three centuries that the civilized world has possessed this talent in its present marvellous extent.* But, remembering that we are here dealing only with the capability of the Darwinian theory to account for the origin of mind, it must be asked, in what way could a talent for mathematics influence the struggle

* This does not, of course, refer to Geometry.

for existence among savages? Take, again, the musical and artistic faculties. Both are to a certain extent found in savages, but their supreme development had no influence on the survival of individuals, nor upon the success of nations struggling for supremacy. The art of Greece did not prevent its being conquered "by rude" Rome. Natural selection, too, acts rigidly by the life or death of individuals. Hence characters developed by its means will be present in all individuals of a species, and, though varying, will not vary widely from a common standard. Variation in physical structure has been shown to be about one-fifth on either side of a mean; whereas, with regard to the variations of talents, the evidence furnished to Wallace by school-masters and music teachers, shows that among boys, only about *one per cent.* have any real or decided mathematical or musical ability. Such talents, so limited in their distribution, could never have become so important to the life of the individual as to be improved by natural selection. Wallace then states that the existence of these faculties, rudimentary in savages, almost suddenly and perfectly developed in the higher civilized races, sporadic in character, the highest manifestation of them being a hundred or perhaps a thousand fold stronger than the lower, is inconsistent with the action of the law of natural selection, *and compels us to recognise some origin wholly distinct* from that which accounts for the animal characteristics of man. This something, which man has not derived from his lower progenitors, Wallace refers to as being of a *spiritual essence or nature*, capable of progressive improvement. "On the supposition of this spiritual nature, "superadded to the animal nature of man, we can understand "much that is mysterious in him, especially the enormous influence of ideas, principles, and beliefs over his whole life and "actions."

To the objection, that the introduction of a new cause or causes will involve a breach of continuity, or change in the effect, he points out that there are at least three stages in the development of the organic world, when some new cause or power must necessarily have come into action. These are first, the change from inorganic to organic, when the first cell or *living* protoplasm appeared. The next stage is still more marvellous and unexplained. It is the introduction of sensation or consciousness, constituting the fundamental distinction between the animal and vegetable kingdom. The third stage is the existence in man of a number of his most characteristic and noblest faculties, which raise him furthest from the brutes and open up infinite possibilities. These three distinct stages of progress from the inorganic world up to man point, Wallace goes on to say, to a world of spirit to which the world of matter is altogether subordinate.

We will at this point leave the subject. The materialist will ask in vain for proofs for such a supposition ; the spiritual man will rest content to be relieved of the crushing mental burden that man and all nature is but the product of the blind, eternal forces of the universe, and that the globe itself, yea, all which it inherits, shall dissolve, and, like the baseless fabric of a vision, leave not a rack behind.

We have now completed our review of modern Darwinism. We have shown how the acceptance of Weismann's views on heredity modifies Darwin's views, but enhances the value of Darwin's theory of natural selection as the most important, if not the exclusive, means of the modification of species. We have also shown one way in which religion and science may perhaps be reconciled, and this will give satisfaction to many, who will find in Mr. Wallace's admission of the necessity of a spiritual world, a scientific justification for the faith that is in them.

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ART. VI.—AYRSHIRE IN INDIA.

Annals of James Macrae, Esq., Governor of Madras, by J. Talboys Wheeler. Madras (printed for private circulation). 1862.

The Dalrymples of Langlands, by John Shaw, Esq. Bath. (privately printed).

AN interesting article appeared in the *Calcutta Review* in October 1891, under the title *Kilwinning in the East*,—interesting, not only to all Indian folk who happen also to be in any way connected with Ayrshire, but to others besides. That article presents an example which might usefully be followed with reference to other counties, or towns, or districts of the old country, which have sent their sons or daughters to the East, though perhaps there are few parts of Scotland, England, or Ireland, which have established so large a title to recognition in India as has the county of Ayr.

Apart from its claim in modern times to some of the honour gained by its sons in India, Ayrshire has played a not unimportant part in Scottish history. From the days of Bruce and Wallace (and long before their time, as Mr. Craufuird-Sterndale points out in the article referred to) down to those of Burns, and to the days since Burns, Ayrshire has inscribed upon its roll of fame many names that belong to all Britain, as well as those which have a special interest for Scotsmen in the East, and Ayrshire men more particularly. Ayrshire people are very clannish. Not many Scottish counties, if any, have kept up, for so many years, a gathering like that of the Ayrshire Club in Edinburgh. There is not much, perhaps, in an annual dinner with national toasts and songs, and plentiful allusions to the Ayrshire ploughman, and so forth, but it keeps up personal interest in the county, which is wholesome, and it draws together those who love to uphold its credit and promote its welfare. There may possibly not be materials for an Ayrshire Club in India, or for meetings of Ayrshire people like those of public school men in India, who, under favourable circumstances, in like manner, dine and talk together, and renew many happy associations. But there is material, as is well known, for an annual Scottish dinner, which is a very popular one. Calcutta is stirred by the great annual festival of the 30th November. The enthusiasm of the day infects others besides born Scotsmen. High officials, though not claimed by Scotland, join, when their duties permit, in doing honour to St. Andrew's day, and the dinner is not unfrequently made the occasion of important public statements, after the manner of certain great Mansion

House banquets in London. The writer of the article that has been referred to has done a service to Indo-Scottish people. A few additional notes, from published and unpublished sources, are here offered by way of supplement to his paper.

The ancient names mentioned in the first part of the paper awaken the interest of the antiquarian and student of early Scottish history, but, in approaching more modern times, the interest expands and covers a larger area, as the events become more real, or at least better known, and the places become personal acquaintances. Some places, again, of interest in connection with the subject of the paper, were more familiar some years ago than they are now, as they stood on highways of that time, deserted now for the iron-roads that have taken other courses. Mr. Sterndale notices Loudoun Hill and Drumclog, the scene of Claverhouse's defeat in 1679. Loudoun Hill was a conspicuous object, seen a long way off by travellers on the coach road, standing on the border-land of the counties of Ayr and Lanark. The *Marquis of Hastings* was the appropriate name of the old coach, and it passed in front of Loudoun Castle, not far from the hill. On the journey westward, the favourite driver, Tom Campbell, himself an enthusiastic West countryman, would wave his whip with a lively crack, and sing out "Hurrah for Ayrshire," as he rattled past the roadside stone that marked the boundary of the two counties. Few travellers now-a-days see Loudoun Hill and Castle. They may sing of "Loudoun's Bonny Woods and Braes" and of the "Lass o' Patie's Mill," which mill, between Loudoun Hill and the Castle on the opposite side of the road, Tom Campbell used to point out to his passengers, with a word or two about Allan Ramsay; and the memory of the Covenanters' day on Drumclog Moss may be kept alive by "Old Mortality," or Sir George Harvey's picture of the fight. But no more do the wheels of the good old coach, or any such like, run over this piece of Ayrshire ground, and no more is there a Marquis of Hastings to reign in Loudoun Castle. Before leaving it, however, let us add Marquis of Hastings to the list given in *Kilwinning in the East* of Indian historical names which belong also to Ayrshire.

The notice in that paper of Kilwinning and its Lodge will be of interest to more than Ayrshire men. The fine old Abbey, now in ruins, which was founded in the middle of the twelfth century, is believed, as Mr. Sterndale tells, to be directly connected with the establishment of the Masonic fraternity there, and the Lodge is the mother lodge in Scotland. Another local institution, the Royal Company of Archers, was founded towards the end of the fifteenth century, and used to keep up, till within very recent years, the observance of the old annual festival, the shooting at the *papingo*, or popinjay, des-

cribed in the second chapter of *Old Mortality* and the Note upon it. The Royal Company of Archers in the present day has its head-quarters in Edinburgh, and has the honour of being the Queen's bodyguard for Scotland.

The first names of Ayrshire men in India brought forward in *Kilwinning in the East* are those of unhappy sufferers in the Black Hole tragedy in 1756. Companionship in misery, such as this, can have derived little comfort from a tie to the same county in Scotland; and yet, little as it was, we can imagine this local bond giving the miserable men some small fragment of solace and encouragement in their sore distress.

An important figure is brought before us when Mr. Sterndale introduces (p. 347) "James Macrae, late Governor of Fort St. George in the East Indies." The history of Macrae and of the Ayrshire people who shared his fortune is given, with some little inaccuracies and obscurities in the *Annals of James Macrae*, printed at Madras in 1862, and also in *The Dalrymples of Langlands*. From other sources some more light is thrown on the story of his career. Briefly it is this. Born in 1674, of very poor parents, and at an early age losing his father, he earned an uncertain livelihood in various little ways, till he was more usefully helped by one of his occasional employers, Hew Macguire, a *wright*, or carpenter, in Ayr, well-known also as a *violer*, or fiddler. Macguire seems to have taken a liking for the boy, noticing his active mind and strong will, and he first helped him to get some scraps of education in Ayr, and then put him in the way of further helping himself by getting him a berth on board a ship sailing to the East Indies. Young Macrae must have done well on that voyage, and in the further employments to which it led; and, when next his friends in Ayr heard of him, many years after, he was called Captain Macrae, and was engaged in trade in the Eastern seas. First, the Government of Madras, and then the Court of Directors, took notice of him and made use of his services. He was in command of the Company's ship *Cassandra* in August 1720, when he distinguished himself by his gallant and successful defence against two strongly-armed pirate vessels; of which action an account is given in Chambers's *Domestic Annals of Scotland* (III. 585). Before this time the carpenter Macguire had found another attraction in the young adventurer's family and had married his sister. Macrae continued to prosper. From one thing to another he advanced. In 1725 he was appointed Deputy Governor of Fort St. David, a post which he never joined, being nominated soon after to the higher office of second Member of Council at Fort St. George. In the beginning of the following year James Macrae was Governor of Madras.

In 1730, at the end of his term of office, he retired with a very large fortune.* All this did not turn his head, except towards the old home, if home it could have been called, of his early days in Ayr, and towards those with whom he was to claim relationship there, a larger family circle than the penniless young boy had left when he stepped on board ship for the unknown East. It was most likely business connected with his late Governorship that kept him for a time within easy reach of the India House. He lived at Blackheath for two years, and then came to Ayrshire, which he never left again.

Soon after his return to Ayrshire, Macrae purchased the estate of Monkton, afterwards called Orangefield, from the trustees of Dr. Hugh Baillie, father of the Indian Civilian who perished in the Black Hole of Calcutta (*Kilwinning in the East*, p. 346). Next, the wealthy ex-Governor purchased the estates of Ochiltree, Alva, and Drumdow in Ayrshire and Houstoun in the adjoining county of Renfrew. His wealth was liberally bestowed on the family of his friendly patron and brother-in-law. Macguire had four daughters, three of whom married, and their rise in the world, with the support of Governor Macrae's money, was highly satisfactory to all concerned. Elizabeth, the eldest, was married in 1744, to William Cunningham, who, in 1768, succeeded his brother as 13th Earl of Glencairn. The second, Margaret, became the wife of James Erskine of Barjarg, a lawyer, who was raised to the Scottish Bench, with the the honorary title of Lord Alva. The fourth, who, having been born after the family had begun to hear of his prosperity in the East, bore the Christian name Macrae, married, in 1742, Charles Dalrymple, who succeeded his father, James Dalrymple of Langlands, as Sheriff Clerk of Ayrshire. The third daughter, Jacobina, died unmarried. Macguire had also two sons. The estate of Houstoun was given to the elder son, James Macguire, who thereupon took the name Macrae in addition to his own. Drumdow became the property of the second son, Hugh. The Ochiltree estate was bestowed on Mrs. Cunningham, afterwards Countess of Glencairn. Alva, given to Mr. Erskine, furnished the title which her husband assumed when he was made a judge. And the principal estate, Orangefield, was presented to Mrs. Dalrymple, the niece who had been named after him. But the Governor continued to reside at Orangefield till his death.

He presented to the city of Glasgow the statue of William III. which stands at the open space where Trongate and Gallowgate cross the Saltmarket and High Street. It was probably another mark of his attachment to the new order of

* Macrae was succeeded at Madras by Mr. George Moreton Pitt, a member of an illustrious family, of whom an interesting account is to be found in Sir Henry Yule's *Diary of William Hedges*, published by the Hakluyt Society.

things brought in by William III., that his chief estate in Ayrshire received the name of Orangefield. But he did not live to see the suppression of the last attempt to restore the Stewarts. He died at Orangefield in 1744, very soon after the marriage of his eldest niece. He had built his own tomb at a prominent spot, called Aiken-brae, on the Orangefield estate, where it can be seen at this day.*

There is much family information in connection with all the above names in the two privately printed books named at the head of this paper. The information is for the most part of little interest except to members of these families and those related to them. But the husband of the eldest Miss Macguire bears a historic name, and her younger sister became a member of an Ayrshire family that has had its representatives in India, and is not undistinguished in Ayrshire history. The first Earl of Glencairn was a powerful supporter of the Reformation in Scotland, and a great personal friend of John Knox. In Wilkie's picture of Knox preaching before Queen Mary, the face seen in profile low down at the extreme left, is that of the Earl of Glencairn. The 14th Earl, son of the Earl who married Miss Macguire, became acquainted with Burns, through his cousin Dalrymple of Orangefield, and introduced the poet to Creech, the Edinburgh publisher, who was induced by Lord Glencairn to publish a second edition of the Ayrshire poet's works.

The Dalrymples belong to a very old Scottish family, distinguished in modern times in various walks of life: one a lawyer, another a soldier, another a hydrographer, another an antiquarian, more than one of them men of note in these and other ways. They belong to East Lothian and to Ayrshire, and these to each other, and many of them to India. One, Stair Dalrymple, perished in the Black Hole of Calcutta, as mentioned in *Kilwinning* (p. 347). Another, Stair Park Dalrymple, was a man of great wealth, all of which he lost in rash and unfortunate transactions with the Nawab of Oudh, and he had to sell the old family property of Langlands. Lieutenant-Colonel James Dalrymple, after a long military service, died at Hyderabad in 1800. The name *Stair* points to the family to which these Dalrymples belong. The hydrographer, Alexander Dalrymple, and Sir David Dalrymple, Lord Hailes, the antiquarian, were sons of Viscount Stair. The name Stair appears from time to time in the families of their descendants, keeping alive, after the ordinary custom, the memory of their forbears. So also *Macrae* and *Glencairn* are retained, as female Christian names, in different branches of these several

* The inscription on the coffin plate was "James Macrae of Orangefield Esq. Obiit, 21 July 1744, Ætatis 70."

families at this day. One of the brothers of that Charles Dalrymple of Orangefield who married Miss Macguire, was the Rev. William Dalrymple, D. D., of Ayr, a man of great note and most loveable character, who is noticed in some well-known verses in Burns's *Kirk's Alarm*. He died in 1814, at the age of 91, sixty-eight years from the time of his ordination. The length of time over which his ministry extended is well illustrated by the fact that he baptized Robert Burns, and also the present Professor of Medical Jurisprudence in the University of Edinburgh, Sir Douglas Maclagan. The good man's own name is borne by another of his great grandsons, the present Archbishop of York, who was himself, in early years, an officer of the Madras Army.

The histories of the families bearing the other Ayrshire names connected with India, mentioned in *Kilwinning in the East*, would all yield matter of interest to their own people and others. The Fullartons (p. 349), several of whom found employment in India, belong to more than one Ayrshire family, some of them both directly and by connection with the Dalrymples. A granddaughter of old Dr. William Dalrymple married, in 1807, William Fullarton, Advocate, whose father, on return from India, had come to Ayrshire, and purchased the estate of Skeldon on the Doon. The memory of his connection with India is preserved in the name of a village which grew up on the estate and is called Patna. The fortunes of the Fullartons in the East, like those of other families, were various. For some of them there were long years of fruitful service, for others few and uneventful days. One of the Skeldon family, in our own day, endowed with gifts of highest promise, seeking a soldier's career in the country his father had come from, had scarcely crossed its threshold, as it might seem, when he passed, instead, to an early grave in the burial-ground of Barrackpore.

Besides the Hamiltons of Sundrum and others of the name mentioned in *Kilwinning*, there have not been wanting other Ayrshire Hamiltons, of old and recent times, in the civil and military service of the Honourable East India Company. A group of Scotch officers foregathered one day on the banks of the Sutlej, during one of the pauses of the fighting in the first Sikh-war, when the talk turned upon Ayrshire, on Captain Ferrier Hamilton of Cairnhill telling his friends he had learned, by last letters from home, that he had become the owner of Netherplace. It is pleasant to think of those fellow countrymen spending a few minutes at such a time in a little chat about Ayrshire.

On the Fergusons, or Fergussons, no doubt, the writer of the *Kilwinning* article could have enlarged, and likewise on some of the other names which he has had to bring together in one

concluding paragraph. The present Post-Master General, late Governor of Bombay, takes a distinguished place among both English and Indian statesmen, and is very thoroughly Ayrshire. Another Ayrshire Fergusson, who spent many years of a useful life in Calcutta, now devotes himself in London to the interests of the Asiatics, sea-farers and others, who have to stay for a time in the great, bewildering city.

Some of the family and estate names which are coupled in the Kilwinning article, have, from time to time, had other combinations. Boswell is the name that has been associated with Auchinleck from before the days of the biographer of Johnson: Gadgirth has been the home of Burnets, not unknown in Indian military circles, and represented now in India by members of the family who have changed their name. Neill of Barnweill has been also for a long time Smith-Neill of Swinridgemuir, even before the most famous of them became known to all the world as Neill of Lucknow. The claim of Ayrshire to uphold his fame is unquestioned, and his statue now stands in Wellington Square of his own county town, within a few steps from the house in which he used to live as a boy.

Montgomerie of Annick Lodge (still picking out names from the article which is the groundwork of this Note) is a family that has been worthily represented in India in our own time by an officer of great distinction, too soon lost to geographical science and research. Montgomerie's name suggests another, of still greater eminence, which may be casually mentioned here, his warm friend and brother officer, Colonel Sir Henry Yule, who was connected with Ayrshire by his relationship to the family of Reid of Adamton, to which place he used to go out, from time to time, when staying in Scotland. The names of two brothers, John and William Muir, of Ayrshire by birth, of India by distinguished service and literary fame, would demand more than a passing notice. The former was as eminent in the mastery of the Sanscrit language and Hindu philosophy as is the latter in the languages, literature, and history of Islam. The elder, John, died in Edinburgh, where he had taken up his abode after retirement from the Indian Civil Service. The younger, Sir William, is Principal of the University in the same city.

Mr. Craufuird Sterndale has, not without reason, spoken of Ayrshire's share in the work of Great Britain in India. It will be a further contribution of much service to general Indian history, if representatives of other counties of the United Kingdom are induced to come forward and do the like for them.

R. M.

ART. VII.—INDIAN CONSTITUTIONAL LAW.—III.

(Continued from No. CLXXVIII. for October 1889, p. 341.)

IV.—*Miscellaneous.*

THE ARMY AND MARINE.

IN order to remove doubts that had been entertained in the matter, the Company's Governments of Fort William, Fort Saint George, and Bombay were declared (53 Geo. III., c. 155, s. 96) to have power to make laws and regulations and Articles of War for the Native troops in India, and for holding courts-martial. By the Charter Act of 1833 (3 and 4 Will. IV., c. 85, s. 73) this power was given to the Governor-General in Council. The power to make Articles of War given by this section is saved by 24 and 25 Vic., c. 67, s. 22.

When the Government of India was transferred to the Crown, it was enacted (21 and 22 Vic., c. 106, s. 56) that the Indian Military and Naval Forces of the Company should serve Her Majesty under their existing conditions of service. At the same time Her Majesty was empowered from time to time, by Order in Council, to alter or regulate the terms and conditions of service. The Military and Naval Forces of the Company were deemed to be Her Majesty's Forces, and their pay and expenses were to be defrayed out of the revenues of India. Formerly military officers, if absent from India for more than five years, forfeited their commissions (33 Geo. III., c. 52, s. 70); now officers of rank not less than that of Lieutenant-Colonel commanding a regiment may, with the permission of the Secretary of State, be absent from India for more than five years. The Army Act of 1881 (44 and 45 Vict., c. 58), as amended by the Act of 1888, is applicable to the Forces of India, so far as consistent with Indian Military laws passed by the Governor-General in Council under s. 73 of 3 and 4 Will. IV., c. 85.

Her Majesty's Indian Marine Service is regulated by the Statute 47 and 48 Vic., chapter 38. It is employed for the transport of troops, the guarding of convict settlements, the suppression of piracy, the survey of coasts and harbours, the visiting of light-houses, the relief of distressed or wrecked vessels, and other local objects, and is maintained out of the revenues of India. The Act, after reciting that the service is not subject either to the Naval Discipline Act, 1866, or to the Merchant Shipping Act, 1854, gives the Governor-General in Council power to make laws for all persons employed or serving in it, provided that

- (a) They shall not apply to vessels outside the limits of Indian waters, when an offence is committed ;

- (b) The punishments imposed shall be similar in character to, and shall not be in excess of, the punishments for similar offences under the Acts relating to Her Majesty's Navy.

The expression "Indian waters" includes the high seas between the Cape of Good Hope on the West and the Straits of Magellan on the East. The Governor-General in Council cannot, without the previous approval of the Secretary of State in Council, empower any Court other than a High Court, to sentence to death any of Her Majesty's natural-born subjects born in Europe, or any child of any such subject. In case of war, vessels, officers and men of the Indian Marine Service may be placed under the command of the senior Naval Officer of the station where they may happen to be ; and in such case, the vessels shall be deemed, to all intents, vessels of war of the Royal Navy, and the men and officers shall be subject to the Naval Discipline Act.

Further provisions relating to the Indian Marine Service are contained in the Indian Marine Act XIV of 1887.

THE POST OFFICE.

By 7 Will. IV. and 1 Vic., chap. 33, Her Majesty's Postmaster-General has the exclusive privilege of conveying, from one place to another, all letters, and of performing all the incidental services of receiving, collecting, sending and delivering all letters, except

- (a) Letters sent by a private friend on his way or journey, to be delivered by such friend ;
- (b) Letters sent by a messenger on purpose, concerning the private affairs of the sender or receiver thereof ;
- (c) Commissions, writs, processes, &c., or returns thereof, issuing out of a Court of Justice ;
- (d) Letters sent out of the United Kingdom by a private vessel (not being a packet boat) ;
- (e) Letters of merchants, owners of vessels of merchandize, sent by such vessels, by any person employed by such owners, for the carriage of such letters, and delivered without any payment or reward ;
- (f) Letters concerning goods or merchandize sent by common known carriers, to be delivered with the goods, without hire or other advantage.

But the exceptions do not authorize any person to make a collection of such excepted letters for the purpose of sending them in the manner authorized.

The area of exclusive privilege under the Act is "wheresoever within the United Kingdom and other Her Majesty's dominions posts or post communications are now or may be hereafter established." 7 and 8 Vic., chap. 49, empowers the Postmaster-

General to establish any posts or post communications in any of Her Majesty's colonies, and the term "colonies" includes India—3 and 4 Vic., c. 96, s. 71. The Statute 12 and 13 Vic., chap. 66, empowers colonial legislatures to establish posts *within* the colonies; and when such posts are established, the powers of Her Majesty's Postmaster-General cease *quoad* the inland posts. It follows that his powers have ceased as regards the inland posts in India, as they have been established by an Act of the Indian Legislative Council, XIV of 1866.

The first Act of the Governor-General's Council relating to the Indian Post Office, is Act XVII of 1837. In 1854 a new Act was passed, which provided for the issue of postage stamps, and a uniform rate of postage for the whole of India. The present Act is Act XIV of 1866.

EUROPEAN BRITISH SUBJECTS.

The English Government has always been jealous to safeguard the lives and liberties of its Christian subjects in Eastern countries. For instance, the Consuls of Christian Powers residing in Turkey, and the Mahomedan countries of the Levant, exercise an exclusive criminal and civil jurisdiction over their fellow countrymen. There are orders of Her Majesty in Council giving similar jurisdiction in Zanzibar, China and Japan. "This departure," remarks Phillimore, "from the strict rule of territorial jurisdiction, is necessitated by the *immiscible* character of Christians and Mahomedans :"
Doris amara suam non intermiscuit undam.

The Courts established by Royal Charters had always possessed an exclusive jurisdiction over European British subjects (13 Geo. III., c. 63, s. 14; 21 Geo. III., c. 70, s. 3; 24 Geo. III., c. 25, s. 64; 37 Geo. III., c. 142, s. 10, &c). When the Charter Act of 1833 was passed, it was provided by section 46, that the Governor-General in Council should not, without the previous sanction of the Court of Directors, give power to any Court, other than the Courts established by His Majesty's Charters, to sentence to death any of His Majesty's natural-born subjects born in Europe, or the children of such subjects, or to abolish any of the Courts of justice established by His Majesty's Charters. This restriction is kept in force by 24 and 25 Vic., c. 67, s. 22, and is the reason for the recital in the preamble to Act XVIII of 1884 (known as the Ilbert Bill). It is repeated in section 5 of the Indian Marine Service Act (47 and 48 Vic., c. 38).

The restriction which the Indian Councils Act placed on the power of Local Legislatures to legislate as regards European British subjects, was found inconvenient, and in 1871 power was given such Legislatures to confer on natives, being Justices

of the Peace, the same jurisdiction over European British subjects as over natives (34 and 35 Vic., c. 34). By section 2 of this Act it is enacted that European British subjects are to be sent for trial before the High Court, in the case of offences triable exclusively by the Court of Session, or which, in the opinion of the Magistrate, ought to be tried by the High Court. The Act also gives Local Legislatures power to repeal and amend certain Acts affecting European British subjects, the validity of which had been declared by Indian Act XXII of 1870.

The Act 28 and 29 Vic., c. 15, s. 3, gives power to the Governor-General in Council to authorize High Courts to exercise jurisdiction in respect of Christian subjects of Her Majesty resident in Native States. Power to make laws for all British subjects of Her Majesty in Native States, whether in the service of the Government of India, or otherwise, is given by 28 and 29 Vic., c. 17, s. 1. The words "Christian subjects of Her Majesty" include Christians, East Indians, and Native Christians.

LIBERTY OF RESIDENCE AND TRADE.

Non-official Europeans were for a long time regarded by the Indian Government as "interlopers," whose presence in the country was highly undesirable. As late as 1833 no non-official European could settle in the Mofussil without the special permission of the Governor-General. It was enacted, in section 81 of the Charter Act of that year, that any natural-born subject of His Majesty might, without any license whatever, proceed by sea to any place having a custom house establishment within the Company's territories, or reside in, or pass through, any part of such territories as were under the Government of the said Company on the 1st January 1800, and in any part of the countries ceded by the Nabob of the Carnatic, of the province of Cuttack, and of the settlements of Singapore and Malacca. The Governor-General in Council was also authorized, with the previous consent of the Court of Directors, to declare any places open to such residence. Section 84 of the same Act * requires the Governor-General to make laws for the prevention or punishment of illicit entrance or residence in the said territories: and "whereas the removal of restrictions of the intercourse of Europeans with the said territories will render it necessary to provide against any mischief or dangers that may arise therefrom," the Governor-General in Council was required to provide for "the protection of the natives from insult and outrage in their persons, religion or opinion." It

* See Act III. of 1854.

was also enacted (sec. 86) that any natural-born subject of His Majesty might acquire and hold lands in the said territories.

It is not absolutely clear what is the law now actually in force regarding the right of private persons to journey or reside in any part of India. Section 3 of the Statute 32 and 33 Vic., c. 98, gives the Governor-General in Council power to repeal all or any of the following sections of the Charter Act of 1833 (3 and 4 Will. IV., c. 85); namely, sections 81 to 86 inclusive. But that power has never been exercised, and therefore it might be argued that these sections would seem to be still in force.* I have, in the preceding paragraph, quoted the provisions of section 81. Section 82 empowers the Governor-General in Council, with the previous consent of the Court of Directors (Secretary of State), to declare other places open. The provisions of sections 84 and 86 have also been mentioned above. In pursuance of section 84, Act III of 1864, was passed. This Act gives the Government very large powers with regard to "foreigners," who are defined to be persons who are not natural-born subjects of Her Majesty or Natives of British India. It remains to consider what power (if any) the Government has of preventing persons who are not "foreigners," from settling either in territories not subject to the Company in 1800, or in Native States.

The leading case on this subject is *Ouseley v. Plowden*,† and, as it is a case of importance, and deals with the liberty of the subject to go where he pleases, it is worth while to give a brief summary of the case and of the judgment of the Supreme Court:—

Trespass for an assault and false imprisonment; special damage, that the plaintiff was prevented from entering on the discharge of certain services for which he had been retained by and for two of the Ranees of the State of Nagpore, in the capacity of their attorney and agent. The defendant (Commissioner of territory) pleaded that there was disaffection, excitement and seditious feeling in the territories, and that order and peaceable government were endangered. Defendant arrested and examined the plaintiff, and required him to promise that he would, within two days, quit the territory of Nagpore, giving him his option of remaining under military surveillance at Kamptee until the orders of the Governor-General could be obtained. The Court found that the appointment and coming of the plaintiff had excited a dangerous and turbulent state of feeling in the city of Nagpore, and that there were substantial grounds for the Commissioner's apprehension of a riot. It was also found that the Plaintiff had accepted an appointment, which was intended by those who retained him to involve the discussion with the Commissioner of the question whether the sovereignty over that Province ought to be transferred to the East India Company or continued by an adoption on the Mahratta Dynasty; and further, that Bidjea Sunkar, the native through whom the appointment was made, was concerned with others in endeavouring to cohate and raise disaffection and sedition among the inhabitants of the Province.

* I believe the Legislative Department of the Government of India holds them to be obsolete.

† *Richard Ouseley v. George Augustus Chichele Plowden*, 6th August 1856; 6th January 1857. Boulnois Rep. 145.

The gist of the judgment is as follows :—

It would certainly seem that the law as to the residence of British subjects in India remains as it was left by the 81st and 82nd sections of 3 and 4 Will. IV., c. 85. Although, by Act IV of 1837,* the Governor-General in Council has, in the fullest manner, exercised the power given by the 86th section of the Statute, there has been no exercise of the power given by the 83rd section, to open to British subjects territories other than those defined in the 81st section.

33 Geo. III., c. 52, ss. 129—145, gave extraordinary powers of arrest and removal for the protection of the company in its extensive trade, consolidating and re-enacting provisions in previous Statutes. These provisions were again continued and incorporated into the 53 Geo. III., c. 155, s. 40. Were these powers continued by the second section of the Charter Act (3 and 4 Will. IV., c. 85), in those portions of the territories of the East India Company which were not thrown open by the 81st section?

These extraordinary powers were unquestionably given in the first instance for the sole purpose of protecting the Company in its exclusive right of trade. It had no territory to govern. They may have been continued when the Company, though still a trading Company, had begun to exercise a delegated sovereignty over the territories which then formed British India, for the double purpose of protecting the Company in its trade, and of strengthening its Government, by keeping out of its territories Europeans who might endanger or be impatient of its rule. Up to 1813, and whilst the trade continued to be exclusive, the commercial,—after 1813, when the trade with the exception of that to China, was thrown open, the political,—was probably the predominant motive for restrictions on residence. But that during the latter period the former motive was still operative, appears from the very terms of the 104th section of the 53 Geo. III., c. 155, which expressly provides for the arrest and deportation of persons found on the coasts of China. But the Statute of Will. IV. introduced an entirely new state of things. The Company altogether ceased to trade. There ceased to be any but political reasons for imposing restrictions upon the residence of British subjects in India.

It is remarkable that the 82nd section does not extend the prohibition to the territories of native Princes; it is confined to those portions of *the Company's territories* which were not thrown open by the 81st section. Its insertion in the Charter Act affords to our minds a strong argument in favour of the hypothesis, that the Imperial Legislature *intended to treat the old law restriction of the residence of British subjects in India as abrogated*, and to substitute for it, partly by its own Acts and partly by the supplementary Acts of the Governor-General in Council, a new law, complete in all its parts.

Under 53 Geo. III., c. 155, s. 104, the power of arrest was incidental to the power of deportation. The arrested person was to be sent home and prosecuted. But why deport a person who is not sent home for the purpose of being prosecuted, where, under the law as it stands, he may return by the next steamer to that part of British India in which residence is made free?

The obvious answer to this is, that no one would wish to prevent him from going to that part of British India where residence is free, and, if he went elsewhere, he could again and again be deported.

It is also urged that the prohibition to enter certain territory implies a power to arrest for the purpose of sending the person arrested into a part of India in which he may lawfully reside. But it cannot be said that a power to arrest for the purpose of deportation is to be construed as a power to arrest for some other purpose. It seems safe to hold that the provision in question is repug-

* Act IV, 1837, enacts that it shall be lawful for any subject of His Majesty to acquire and hold property in land, or any emoluments issuing out of land, in any part of the territories of the East India Company. Of course there are restrictions on some officials holding land; and in some non-regulation tracts, restrictions are imposed on the right to acquire land. For instance, as regards the Garo Hills, see Reg. I. of 1800, s. 4.

nant to the enactments of the new Statute, as being, to use Lord Coke's expression, "contrary in matter" (Foster's case).

Upon the whole, *while we admit the difficulty of the question*, we have come to the conclusion that the provisions of the earlier Statutes, on which the defendant relies, were abrogated by the 3 and 4 Will. IV., c. 85. and that he cannot justify under them the arrest, which is the subject of this action. If we are wrong, we are erring on the side of Lord Bacon, when he says, "therefore let penal laws, *if they have been sleepers for so long, or if they be grown unfit for the present time*, be by Judges confined in the execution."

In this particular case we are unable to say that the arrest was necessary—that Major Ousely's withdrawal from the Province, where his presence was deemed dangerous to public tranquillity, might not have been obtained without it. *If after warning* he had persisted in remaining there, and in communicating with the disaffected, that might have justified *further proceedings*, either as affording evidence of his complicity in their seditious designs, or even on the ground of a wilful and continued contravention of the prohibition contained in the 82nd section of the 3 and 4 Will. IV., c. 85.

We have endeavoured to deal with the case, not as it has sometimes been represented in the heat of argument, as a gross and oppressive Act of arbitrary power, but, as we think it must strike any dispassionate mind, as one in which a public officer, in a situation of some difficulty, with *real and not unreasonable* apprehension of danger to the public tranquillity may, or may not, have exceeded his legal powers. We have dealt with it with an anxious desire neither on the one hand to weaken the powers with which, for the general safety, the law invests men in authority, nor, on the other, to diminish the protection which the law casts over the liberty of the subject.

The spirit of antagonism to, and jealousy of, the Executive Government shown by the old Supreme Court is a matter of history, and the effects and influences of that attitude cannot be said even yet to have entirely died away. No administrative officer can help feeling, after a perusal of the above judgment, that the decision would have been different had the case gone before the Sudder Dewani Adalat. The Calcutta Supreme Court held that they had jurisdiction over Mr. Plowden, because he had, *at a previous period*, been in Calcutta! They construed "shall reside" to mean "shall at any time have resided." Then, all the facts were found in favour of the defendant, and indeed the Mutiny which followed soon after, was a complete justification of the necessity for Mr. Plowden's action. It is not sufficiently obvious why the mention of "the Company's territories" only (and not Native States) in the 82nd section of the Charter Act of 1833 affords an argument that the Legislature intended to abrogate the old law. The Court held, quoting an expression of Lord Coke's, that a power to arrest for deportation did not include a power to arrest for a much milder object, namely, to send the person arrested into a part of India in which he might lawfully reside. The difficulty of the issue is admitted, and the Judges seem to think it a sufficient solace that, if they are wrong, they are erring on the side of Lord Bacon. But there was nothing to show that the old law had "slept for long," and the facts found by the Court show that it had not grown "unfit for the present time." In one place the judgment states that the arrest was not

necessary, but that if Major Ousely had remained after warning, that might have justified further *proceedings*! The word "proceedings" is delightfully vague. If the arrest was illegal, it is not easy to see how a previous warning would have rendered it legal. But the facts found showed that the arrest was necessary, and in another part of the judgment it is stated that there was real apprehension of danger. And yet, the case was given against the Political Agent. Further comment is superfluous.

Unfortunately, all judgments, good, bad, or indifferent, are equally "facts:" *Quod fieri non debuit, id factum valet*. The judgment must apparently be accepted as having repealed certain Statutes which neither Parliament nor the Governor-General in Council had repealed. Such are the vagaries and usurpations of Judge-made law.

What, then, is the law as it now stands? The 83rd section (3 and 4 Will IV., c. 85) empowers the Governor-General in Council to declare other places open (that is, other than the territories mentioned in the 81st section). No legislative action has been taken under this section. But, with reference to the 84th section, which *requires* the Governor-General in Council to make laws against illicit residence, Act III of 1864 has been passed. The preamble to this Act is as follows: "Whereas it is expedient to enable the Government to prevent the subjects of Foreign States from residing or sojourning in British India, or from passing through or travelling therein, without the consent of the Government ;—" By "British India" is denoted the territories which are, or may become, vested in Her Majesty by the Statute 21 and 22 Vic., c. 106. The word "foreigner" denotes a person, not being either a natural-born subject of Her Majesty within the meaning of the Statute 3 and 4 Will. IV., c. 85, s. 81, or a native of British India. In passing this Act, the Legislature would seem to have had the whole question before them, and it may be inferred from its provisions, that natural-born subjects may now go and reside anywhere, and that there is no distinction between territories in the Company's possession in 1800 and territories subsequently acquired. The law then seems to be as follows :—

1. Natural-born subjects of Her Majesty may reside or travel in any part of British India ;
2. They cannot, as of right, reside or travel in Native States ;
3. "Foreigners" cannot, as of right, reside or travel in any part of British India without the consent of Government ; much less in Native States.

The question remains whether natural-born subjects can reside in Native States with the permission of the Native

Rulers only, or whether the Government of India can, apart from the wishes of the Native Rulers, prevent them from doing so. This matter is regulated, in most cases, by treaties with the Native States. In a late speech Sir Lepel Griffin remarked that, owing to the absence of any restraining clause in the treaty with the Nizam, Hyderabad is overrun with "European adventurers of an especially bad type." It seems to me that the paramountship of the Government of India would be a misnomer and a farce, if they had no power, apart from treaties, to prevent particular persons from entering Native States. The law does not authorize such entry, and the question is one in each case for the decision of the Paramount Power. There can be no such thing as International Law between the Government of India and the Native States; the "sic volo, sic jubeo" principle must be resorted to in all differences of opinion, or the suzerainty would be a farce. The British Government can do what is done by the French, German and Russian Governments.*

H. A. D. PHILLIPS,

* As regards the admission and expulsion of foreigners by the State, an excellent monograph has been written by M. H. Pascaud, Conseiller, à la cour de Chambéry.

ART. VIII.—INDIAN FERNS.

A HOBBY is a wholesome thing. It is probable that even crest, monogram and postage-stamp collectors are happier than their fellow creatures who have no definite pursuit. The autograph hunter belongs to a higher order in the scale of humanity, for his accumulations are interesting, and even useful, to the biographer and the historian as well as to himself; but collecting autographs, unless all and sundry are welcomed, and number is the object, cannot occupy much of any one's spare time. Of all collectors the antiquary is generally considered to have the most absorbing pursuit, and his little weaknesses have often been the theme of satirists. But the labours of a Grose or an Oldbuck are most useful, supplying, as they do, details for the ethnologist and the historian. The coin-collector is another most useful species of hobby-rider, for history owes much to numismatics. The study of antiquities of any sort is, however, limited by the exhaustible nature of the field, and the fact that a discoverer often removes all he finds. A mound, a *tope*, or even a pyramid, is like a quarry or a mine, and may be soon exhausted; and, like a mine, it may, in the language of lawyers and accountants, be called a "wasting property," the dividend or interest derivable from which will some day come to an end. In the case of a quarry or mine, a prudent owner will set apart a sinking fund to meet the depreciation in the value of his wasting property, and not treat the whole of the proceeds as income; but the interest derivable from an antiquarian "find" is strictly limited, and the capital cannot be replaced. Few can hope to make good collections of relics of antiquity; indeed, an antiquary values the objects in his collection according to their rarity, and were ancient coins, implements and utensils found in abundance they would cease to be prized. It is otherwise with the products of nature. Their variety, as well as their quantity, is inexhaustible, if man in his wantonness or greed does not interfere; and, although specimens of rare species are specially cherished, a natural history collection is valued greatly according to its completeness. Any one may take up the study of natural history, whether of the animate or inanimate creation, without fear of ever exhausting the subject, and sure of always finding something new to him. If he tires of one branch, he can take up another; and, indeed, the study of one branch must often be incomplete without a knowledge of others. Where would the geologist be if Mineralogy were the only detail he had previously made himself acquainted

with? he must have a certain knowledge also of Chemistry, Zoology, Conchology and Botany. The student, or even the amateur, of any branch of natural science must be a more cultured and a happier man, or woman, than any mere crest or stamp collector.

To the resident in India who either lives in a jungly district, or can make trips to the mountain ranges, botany, or even mere plant collecting, is—entomology, perhaps, excepted—probably the branch of natural history which offers the greatest facilities for study; and if he has already turned his attention to it in other countries, he must look with interest at the new forms of plant-life which here present themselves to his view. The present writer well remembers his delight, before he had been many months in India (now over thirty years ago), at seeing, in a dry part of the hilly country between the valley of the Jumna and Jubbulpore, where few striking flowering plants were to be found, the magnificent climbing lily (*Gloriosa superba*), luxuriating in the arms of the prickly *Ber* (*Zizyphus*) bush, and the interest with which he afterwards found the same plant growing on open “downs” near Almora, in the Himalayas, and again, at 5,000 or 6,000 feet lower level, near the seashore in Akyab. More recently he has seen this plant in several places in the Dehra Dun. Another plant which much struck him, as *habitans in sicco*, in the part of India first above-mentioned was the little *Actiniopteris radiata* (Link), a fern, the only species of its genus, which bears a remarkable resemblance in miniature to the crown of a fan-palm tree.

But “Botany” is a large subject, and no one can hope to be really a botanist without years of special study, not only in the garden and the field, but at the desk, and with knife and forceps in hand, and lens or microscope at eye. A successful collector he may, no doubt, become, for a good eye, perseverance, and physical endurance are the chief requisites for such a degree of attainment; but a botanist—that is quite a different thing. It would be wrong to discourage any one from seriously taking up the study of botany, and such is not the object of this article. All that is now wished is to point out one branch of the science which may be taken up almost quite by itself, and in which the amateur may do much, alike for its advancement and for his own benefit; for it is one too often despised and neglected by the scientific labourer. Pteridology, or the scientific knowledge of ferns, is perhaps the division of botany which at once requires the least preliminary knowledge and the least study for its pursuit: it gives the most pleasure in the collection of specimens, and yields the most lasting enjoyment to the collector. Full many a flower

loses its beauty directly it is plucked, or at least after it is transferred to the drying press ; but ferns are independent of floral attraction, and they always, if carefully treated, retain their beauty of form, and not seldom of colour, in the herbarium. A fern is a thing of beauty and a joy for ever ; while even the *Gloriosa superba*, above praised for its beauty in life, is in the herbarium good only for reference. A fern is not seldom beautiful as a whole plant ; while each separate frond, if intelligently gathered, is perfect in itself, and satisfies the eye. The want of flower does not strike one in looking at a fern, its beauty is complete without it ; and the proof of this is that specimens in ladies' albums generally want even the fructification which completes the plant, and is so often necessary for the identification of the species. The beauty of form and cutting alone is sufficient for the fair collector, who is thus, however, very unfair to her collection.

If, as has been said above, the visitor to a hill-station in India is favourably situated for the study of plants in general, he is most peculiarly favoured if he makes ferns his speciality. The climate of the mountains is moist, and, with a few exceptions, such as *Actiniopteris radiata* mentioned above, sometimes found on dry walls of buildings in the plains : ferns love and must have moisture in abundance, for part of the year at least. In the whole of the British Isles there are not (speaking without book) forty distinct species of ferns (*Filices*), and in the circuit of twenty miles round Edinburgh, within which the botanical students of that city generally collect, there are only about twenty-six species : but within twenty miles of a Himalayan station, one hundred good species can easily be got. Writing in 1879, Mr. C. B. Clarke, in his "Review of the Ferns of Northern India," admitted 363 species and recognized varieties as being found in that region—plains and hills together : this included 16 new species. Colonel Beddome, in the Supplement to his previous works which was published in 1876, allowed 405 species and well marked varieties to exist in Northern India, but his personal acquaintance with that region was small. In his "Hand-book to the Ferns of British India, Ceylon and the Malay Peninsula," published in 1883, which, so far as the text is concerned, has superseded his previously published books, Colonel Beddome gives about 410 species and varieties as being found in Northern India. The difference between Mr. Clarke's and Colonel Beddome's total shows what a wide field for research and study then existed. In the columns of the *Civil and Military Gazette* (the Punjab daily newspaper), in the concluding article of a series which will be freely made use of in this article, the present writer reviewed Mr. Clarke's "Review," and enumerated

some twenty-five species of ferns which he knew had been found in the Himalayan tracts westward of Nepal, in addition to the 142 species known to Mr. Clarke as having been collected within those limits ; and the list can now be considerably extended. Mr. Clarke enumerated, or described, 257 species for Nepal and the Himalaya to the east of it, and 247 from Assam to Chittagong, besides 47 species found in the plains north of the Peninsula ; and of his whole 363 species, excluding Lycopods and Equisetums, 88 were peculiar to Northern India. If areas be taken, the 47 species of the plains of Northern India seem poverty itself when compared with the 40 or so of the British Islands. But how few Europeans in India know that there is even one fern in the plains. They would probably be astonished to hear that the (so-called) true Maiden-hair (*Adiantum Capillus-Veneris*, L.) grows, or used to grow, in perfection on walls in the Entally, and doubtless other suburbs in Calcutta, and it is found in garden wells in much drier parts of India, such as Dinapur and Arrah in Behar.

Before saying more about the ferns of Northern India, with which region this article has chiefly to do, some further space will be devoted to showing that the collection and study of ferns is a worthy occupation, and to explaining in what spirit, and to what end, it ought to be followed. The aim in collecting standing ferns or any other natural "Order," is—as great a measure of completeness and accuracy as may be within the power of mortal man to attain, and it is the very impossibility of ever reaching finality of knowledge that gives fascination to such pursuits. The beginner may at first almost despair of becoming an expert, but, if he is in earnest it will not be long before he finds that he may hope to make valuable discoveries in what he makes his speciality. The concentration of the powers of observation and comparison in one direction is sure to yield a result. As an instance in point :—When the present writer first turned his attention to ferns, he did so almost to the exclusion of general botany, which he was supposed to be studying, and, while on collecting excursions at least, he had an eye chiefly for ferns. He, therefore, as a first-year student, and when on an excursion with his teacher, Professor Balfour, and about twenty students and past students—some of them then, and since, eminent in science—in the district in the Highlands of Scotland which is perhaps the richest of all in alpine plants, had the apparent luck to detect what was then considered to be the rarest of all British ferns, and is certainly one of the most beautiful ; and it was probable that if he, like the others present, had been thinking much also of rare flowering plants, mosses, and lichens, the *Cystopteris montana*, which had not been found there for

about twenty years, would have had a further reprieve. The rediscoverer did not then know the fern by sight, name, or reputation ; but, at a glance, he was sure that it was something new to him, and worth gathering, and, with a verdure and guilelessness which he has never since ceased to regret, he at once showed a frond of it to the Professor. The Professor's eyes glistened; he began to mutter; took out his lens; murmured "it must be;" called to him a brother Professor and two or three passed students, and, fortified with their verdict, at length shouted: "It is, it is, the *Cystopteris montana*!" The gatherer was then, of course, obliged to show the spot where the fern had been found, and presently all the fingers and spuds of the party, his own excepted, were buried in the ground, bent on securing as much as possible of the precious plant. The original finder, being a comparative griff, and moreover, a mere amateur among professional students who were competing for prizes, felt somewhat as David Copperfield did when the waiter discovered that the pudding was his own favourite one, and, trusting to the Professor's promise to share his spoils with him afterwards, he stood by and suffered him (who well knew the value of the "find," but had hardly hoped for it) to go in and win. The rediscoverer of the habitat ultimately got only a few scraps of the fern, which have long since, with other collections of those days, been accidentally destroyed; but the ghost of the probably now extinct (in Scotland) *Cystopteris montana* still haunts him. Soon afterwards, it was said, a student who had been one of the party, and had purposely well marked the spot, revisited the mountain and did his best to prevent that fern being rediscovered. At all events, when, some years afterwards, the writer went, with two discreet kindred spirits, to hunt for that and other rare Alpine plants, not a scrap of it could be met with.

The incident above narrated may serve to point a moral I would desire to inculcate on all collectors, and that is, to preserve a certain degree of reticence as to the exact localities of their notable "finds," unless they are perfectly certain of the discretion of those to whom they communicate them. Their own discretion we take for granted, though it does require some degree of self-control not to gather every plant of what we know, or suspect, would be a treasure in a herbarium. A good "stock" should always be religiously left. On the label, or ticket, which should be placed with every specimen, or sheet of specimens, enough should be written to identify at least the neighbourhood in which the plant was gathered, and, if in a mountainous country, the approximate elevation above sea-level should be entered, with the year, and the month of collection; and a word or two may be added, such as, "on trees," "on

rocks," open ground," "bed of stream," &c.,—just to give future collectors a better chance of verifying the discovery. If some degree of reticence be not observed, a rarity soon becomes extinct in a given locality; for amateurs are often thoughtless, and effect wanton destruction, and the ferocious *jampáni*, in his marauding for the decoration of his mistress's table, has no compunction. On the other hand, a specimen, however authentic, has little scientific value unless the locality whence it was obtained is sufficiently recorded by the collector. If a fern is common, the name of the district may be enough to give; but if it is new or rare, something more definite should be disclosed; and in a district "Flora," localities should be more minutely particularized than would be considered necessary in the "Flora" of a whole country. As we are on the subject of labels, it may as well be mentioned that each label should be authenticated by the signature of the person who collected the plant; and if any specimen has been gathered by a paid native collector, the label should, strictly speaking, in addition to the signature of the owner of the collection, bear the words—"fide collector," meaning that the locality is given "on the faith of" the native's statement. If the specimen is obtained from a neighbour, or correspondent, he—if he is only properly particular and jealous of his own fame—will have written on the top of the label "*Ex herbis* so and so," putting his name as the giver; but if this has not been done, the recipient should either get the omission supplied by the donor, or himself add the superscription. If the label bears neither such superscription nor an entry of the collector's name, and the recipient cannot return it for completion, he may write on it the words "Com. by so and so," *i.e.*, "communicated by," and if he has actual knowledge that the donor was the collector, he may put "Coll. et com." *i.e.*, "collected and communicated by so and so." One cannot be too particular about labels. Until specimens are mounted, and the labels glued down beside them, there is always a risk of their being lost, or getting placed with specimens they do not belong to; and even though a label is found with a fern whose name it correctly bears, that may not be enough, for the varieties or forms of certain species are numerous, and these are often peculiar to certain districts and elevations. If, therefore, the label belonging to a species which has only been found at an elevation of 1,000 to 5,000 feet, gets shifted to a specimen of a form of the same species which grows only at, say, 10,000 to 12,000 feet above the sea, the proper label of which has been lost or changed for the label of the low species, confusion and doubt—yea, even hard words—may result. Beginners are rarely particular enough in the matter of labels; but they are sure eventually to find out their mistake. They find themselves

with a stock of duplicates, useless for purposes of exchange because not properly authenticated, and the history of which they have themselves forgotten. And authors, on their part, have to be very particular in correctly quoting from the labels of specimens communicated to them. Thus the present writer finds himself credited, along with two other collectors, in Mr. C. B. Clarke's work, with having found a comparatively rare fern (*Adiantum Edgeworthii*) in the district of Garhwal, or Gurwhal, as Mr. Clarke, perhaps correctly, prints it, whereas he never set foot in that district until seven years after the plant was given to Mr. Clarke. Kumaun was the district, and the year was 1861; and the same plant was found by the same person ten years later near Simla, which locality may now be added. Neither Kumaun nor Simla is given in the book as a locality for the plant. This, by the way, shows the importance of putting the year of collection on a label, for it may settle the question of priority of discovery—one which is very interesting to collectors.

This article being of a discursive nature, I may go back to *Cystopteris montana*, and observe that this fern, though it occurs on most of the mountain chains of Continental Northern and Central Europe, had not been found in the Asiatic Continent, except in Kamtschatka, until 1884, when it was found, at an altitude of 12,000 to 13,000 feet, in Kumaun in North-Western India, by Mr. J. F. Duthie, the Director of the Botanical Department in Northern India. Other stations for the plant were discovered by Mr. Duthie in West Nepal, in 1886; but, so far as I know, no one else has found the plant between the Carpathians in Europe and the east of Asia. An amusing incident which occurred during the excursion to Ben Lawers, mentioned above, as culminating, at least so far as the present writer is concerned, in the rediscovery there of *Cystopteris montana*, may be recalled. One of the passed students of the party, whose tastes had already led him also to the successful study of geology, was James Hector, now Sir James Hector, a distinguished Professor in New Zealand. As the party were walking from Killin eastwards along the left bank of Loch Tay, a vividly white patch came in sight on the face of the comparatively low range of mountains on the other side of the lake, and, remaining in view for a long time, gave rise to much discussion. Several of the party maintained that it must be a patch of unmelted snow, which, as the mountains were not high, and the time was the end of August, was rather a stretch of imagination. Hector, as the geologist of the party, knowing that some of the hills in that district were composed almost wholly of white quartz rock, maintained stoutly

that the shining object was an exposed vein of quartz ; and at last, as the discussion waxed warm, he appealed to a native (of Perthshire) who was passing by, and asked him whether that white shining patch had not always been there, or at least as long as he, the native, could remember. The native, with Scottish canniness, or laconism, answered—Yes : whereupon Hector was triumphant. A better view, however, obtained as the party proceeded eastward, or the use of a field-glass, soon afterwards showed plainly that the geologist's quartz, and the other disputant's snow, was merely falling water, coming perhaps from a small loch in the hills. Both the geologist and his referee were, therefore, right in saying that the white patch had been there as long as the latter could remember.

To return to our lost, or strayed, sheep :—we wish to enlist in the cult of our hobby not only those who have some knowledge of botany, but have hitherto devoted themselves to the study, or collection, of flowering plants, or, it may be, mosses and the other lower cryptogamic plants, to the exclusion of ferns, but also all and sundry who find time hang heavy on their hands during a stay in the hills, or who feel that their present occupations are not worth the trouble and time spent on them. To judge by appearances, one might think that most of the younger visitors to hill-stations had gone up so high solely in pursuit of dancing and lawn-tennis under difficulties. Nature, and the most magnificent scenery, seem to have for them no charms ; and, probably, if they could get as much dancing and lawn-tennis in the plains, many people would never take the trouble to go up-hill. And even to the man without other ostensible occupation than that of a "bow-wow," we would appeal, and offer him a means of escape from his unworthy thralldom. Ladies, of course, especially in a hilly country, are at a disadvantage in such a pursuit as plant-collecting : the sartorial trammels of fashion come in the way ; but it is surely not beyond the wit of woman, or at least of man, to devise a dress that would admit of a good deal of scrambling and jungle-roaming. Let me suggest a costume of stout, coloured cotton drill—plain short skirt, knickerbockers, and leggings—and a terai hat, dyed of any colour that may be thought becoming, and trimmed or embroidered in any way that wont attract the embraces of prickly shrubs and trailing plants. Such a dress, if kept for the jungle, and not paraded on the mall or tennis-ground, would soon be thought quite unobjectionable. But, even without going far from the roads and paths in the hills, a lady may do a good deal in the way of fern-collecting by sending her *jampánis*, or her gardeners, down *khuds*, and into thickets,

where she cannot herself penetrate. And what good might she not do by making collectors of her gentlemen friends and admirers? While enriching her collection, she would improve their habits, and perhaps even their minds. She might do the book-work, and, after mugging up the terminology of the subject, and learning to differentiate the specimens, she would be able, if she were as charming as we suppose her to be, to give lectures on pteridology to an attentive, as well as an admiring, audience. Much, too, can be done to swell a collection by exchanging. Even the commonest ferns of one locality may be wholly absent in another, and serious collectors like to have specimens in their *herbaria* from widely distant localities: they are, therefore, always on the look out for an opportunity of exchanging their duplicates for authentic and properly-labelled specimens from a distance.

Intending students of botany, or indeed, I believe, of any branch of natural history, should begin by discarding the use of their own language in naming, or referring by name to, the specimens they collect. From a scientific point of view popular names are perfectly worthless, though, when working in a foreign country, it is advisable to learn and note the vernacular names of plants, as a help in collecting them, and as the means of finding out their reputed medicinal and other economic properties. A few of the commoner ferns in India will be found to have vernacular names, generally because the young shoots are edible. But I would earnestly beg my disciples, if I should be so fortunate as to attract any, to begin by forgetting any English name they have ever heard or read of for a fern. Such names are often simply ridiculous, and their use is a bar to any extension of knowledge. For purposes of scientific study, it does not much matter what name is given to a plant; and we know, on good authority, that 'a rose by any other name would smell as sweet!' What is wanted is some definite name by which that plant shall be universally known, and by which students of every country may identify it. And, from the time of Linnæus, the Latin language has been adopted by all nations as that from which nomenclature must be drawn: the reason being that it is a dead language, learnt to a certain extent by educated people of all nations, and therefore absolutely neutral. Even where a name for a plant is suggested by the name of its discoverer, or its first describer, that name must be at once Latinized, or it will not find universal currency. "Pet names" find no real favour with people who have any glimmering of scientific perception: and the truckling to ignorant prejudices that one sometimes meets with in even scientific books, where a perhaps quite unintelligible English name is added to the recognized

scientific name, is truly deplorable. I speak as a man, and my lady readers must bear with me till I have fully stated the case. Take a list of British Ferns in even a good book. One of the commonest British ferns, *Polypodium vulgare*, so named or described by Linnæus, is called by people who pretend they cannot learn Latin names "common polypody," and they pretend that that is English. Another *Polypodium* is called the Beech-fern, apparently because the specific name botanists have given it is derived from the Greek word for beech; but another name is Sun-fern. And yet another *Polypodium* is now called the Oak-fern, though that was formerly another name for the "common polypody." Another group of ferns is called in English "Shield-ferns," but how many who use the term could tell its meaning, or origin, I never cared to enquire. The form of the frond is not at all shield-like, but the form of the covering (*indusium* or *involucre*) of the spore-cases is that of a round shield; hence the name of the genus *Aspidium*, from *aspidos*—Greek for a shield or buckler. But the English name of a species of a different genus altogether is "Heath shield-fern," and also, "Sweet mountain-fern." Now the genus to which this last mentioned fern belongs, according to the authorities we go by, is *Nephrodium*, a name given to it as expressive of the kidney-shaped *indusium* of the spore-cases; so the name "Shield-fern" is used quite meaninglessly. Take another common English fern, of which there are several congeners in the Himalayas, *Asplenium Filix-fœmina*, and about which much sentiment is cherished: the English name is the "Lady-fern." Would ladies care so much for it, if the old Latin-name had been literally translated into Female-fern? Ladies don't like to be talked of as females, so they must call even their plants ladies. The corresponding Latin name *Filix-mas*, is, however, treated with less delicacy, and becomes in English "Male-fern." Can anything be more ridiculous? No doubt the ancients, who first used the epithets—male and female—for these plants, in so doing made quite as ridiculous suggestions as the English names for plants often convey; but these names have become classical with the Latin language and, as I have already shown, the meaning of a word used as the name for a plant does not much signify, so long as it is universally used. There is, if the ladies only knew it, another fern in Great Britain which is perhaps as well entitled to the name "Lady-fern," and that is *Lastrea Thelypteris*, known in books as the Marsh-fern, but in the Isle of Wight as the Ground-fern. The specific name is a Greek compound, signifying Lady-fern, which, says Britten, was probably originally bestowed on the plant on account of its delicate appearance. I must have another

fling at ladies, and the names they are fond of using for plants. How often is one asked, "Is that the true Maiden-hair?" or, "Have you got the Maiden-hair?" meaning one particular species (the only British one) of the sixty and upwards that are included in the genus *Adiantum*. How "*Capillus-Veneris*," the hair of Venus, who was, when best known, decidedly a matron, ever came to be translated "Maiden-hair," or whether the hair of a maiden differs from that of a matron, however frisky, we might wonder; but, turning up John Smith's "*Historia Filicum*" (The History of Ferns), we find "it derives the name of Maiden-hair from the circumstance of a syrup being prepared from it called *Capillaire*, which, being slightly odoriferous, or made so by the addition of orange flower water, is used by the women" (in the South of Europe) "in dressing their hair, and for promoting its growth." I might, acting on this hint, suggest, as another name, the Macassar-oil Fern. Another absurd and most misleading English name for a fern is "Flowering-fern," given to *Osmunda regalis*, which has not a flower, any more than any other fern or cryptogamic plant has. The name "Filmy-fern" is not bad, as applied to the two genera *Hymenophyllum* and *Trichomanes*; but of what use is it by itself? There are, according to Hooker and Baker (other authorities make many more), 71 species of *Hymenophyllum* and 78 of *Trichomanes*, say, 150 "Filmy-ferns," and there are other genera and species of ferns that might equally be called filmy. What a fight there would be amongst all these if they heard that certain ladies prided themselves on having got "the true Filmy-fern!" And, according to Hooker and Baker, there are nearly 400 species of the genus *Polypodium* in the world, 67 of which are, according to C. B. Clarke, to be found in Northern India. Could English adjectives be found to distinguish all these "Polypodies"?

Enough has been said, I think, to show the futility of attempting to study ferns, or any class of plants, under English names, and I hope that my lady readers will—manfully, or, at least, womanfully—cast the idea of English names altogether aside; and, if they feel almost persuaded to go in for fern-hunting, seriously try whether the Latin names will really hurt them. They may be assured that it is only the first step that will hurt. Let a lady (or a "male person"), ignorant of Latin, only take up each accessible fern in turn, beginning with the commoner ones, and make out, from study of books or enquiry, what are its distinguishing characteristics of appearance, growth, and form of fructification, and then compare one with the other, and I guarantee that in a very few days she will have learned the names of all the *genera* she need at first trouble herself about, and of not a few species also, and, once in

use, the names are never forgotten. The present writer found not the slightest difficulty in teaching the Latin names of some dozen of ferns growing in his garden to his little boy and girl, who, at the time of learning them, were five-and-a-half and four years old respectively. *Lygodium pinnatifidum* and *Polypodium proliferum* became to them household words, and they could name these ferns at once did a stranger describe their habit of growth. The obstacle of Latin nomenclature is no worse than bug-bears generally prove when looked in the face. And the names are not all ugly: *Davallia*, *Cheilanthes*, *Pellaea*, *Asplenium* (surely prettier than its English equivalent—Spleenwort), *Nephrodium* (better than Kidney-fern), *Oleandra*, *Notholaena*, *Vittaria* and *Osmunda* are surely euphonious enough. Even *Polypodium* is better than Polypody. It will be found a great help to study to get up a fernery, and this can be easily done in the hills. Specimens of plants in cultivation are legitimate objects of study, though on no account should they obtain admittance to a *herbarium* (or dried collection) unless in their true character, and duly labelled as "cultivated." I hope no one for whom I write will ever feel tempted to palm off a cultivated fern for a wild one gathered on the hill side. And a fernery is a most interesting thing when stocked with plants of one's own gathering, the locality of each of which is green in one's memory, and round each of which associations of scenery and companionship, and perhaps even of adventure, are clustered.

It is fortunate for my argument that ferns are generally most abundant in the prettiest spots. As already said, with a few exceptions they love moisture, and they also love shade. With such aids and protection vegetation of most sorts becomes luxuriant, and luxuriant vegetation is an important factor in beautiful scenery. The fern-hunter is thus sure of discovering, or seeing, the most beautiful spots in the ground he is quartering, whereas ordinary mortals, who generally stick to beaten paths, often remain ignorant of what is best worth seeing in even their own immediate neighbourhoods. I cannot now attempt even to name the many lovely scenes that have a place in my recollection of ferning excursions; but, to show how intimately ferns and scenery are connected, I may mention that when I dream, as I not unfrequently do, of searching for and collecting ferns, which are generally of new species and even new genera, I also dream of the scenery amidst which they grow, and it is as novel and beautiful as are the ferns themselves. The inspection of a batch of ferns collected in a country that I have never visited, creates a longing to see the surroundings in which they have flourished, but a longing which, alas! can seldom afterwards be gratified.

For the study of ferns, as well as of other orders of plants, books are of course required, and the following works may be mentioned as either indispensable for the Indian student, or as desirable for him to have. I now speak of the study of ferns as whole plants, and not of the study of their structure and mode of reproduction, as revealed by the microscope. That study can be carried on at any time. Let residents in hill-stations, for whom chiefly I now write, begin by collecting specimens, and studying the habits of growth of the different genera and species of ferns. The desire to penetrate further into the arcana of nature may come with that, but can be gratified afterwards. Nor need one trouble one's self much at first about the classification of ferns. Identification of species with those described in books will give plenty of work for a while. The variety in the systems of classification adopted by different authors is very puzzling. *Quot homines—tot sententiæ.* It is unfortunate that the books I have to recommend for Indian students of ferns differ so widely on this point. But, fortunately, one is not obliged to make up one's mind which system is right. "Who shall decide where doctors disagree?" All the amateur need do is to choose his doctor, and stick to him, until he begins to have lights of his own, and he can then apply them as tests to what he finds in his text-book, and if he finds it wanting, he can try another. The firm of doctors I recommend to be called in to the present case is that of the late SIR WILLIAM JACKSON HOOKER, Director of the Royal Gardens of Kew, and JOHN GILBERT BAKER, Assistant Curator of the Kew Herbarium, whose book, "*Synopsis Filicum*," a synopsis of all known ferns, should be taken as the text-book. The second edition of this work, containing 78 pages of additions and emendations to the original, was published in 1874, and is now out of print. As there is no chance of a third edition being speedily produced, Mr. Baker is now contributing to "The Annals of Botany," a "Summary" of the new Ferns which have been discovered or described since 1874. The Indian fern-hunter is recommended nevertheless to take, as his main guide, if he can get it, "Hooker and Baker's Synopsis;" to compare all the ferns he gets and thinks he has found out, or has been told the names of, with the descriptions to be found in that book, and to use the names given in that book, and no others, unless he is satisfied of their incorrectness. The division into *genera* in the Synopsis is quite minute enough, especially as the species are further grouped in *sub-genera*, which are generally the unnecessarily multiplied *genera* of other authors. Distinctions between these *sub-genera* undoubtedly exist, but they are subordinate to the main characters, which alone Hooker and Baker admit as being entitled to

generic rank. This unnecessary setting up of *genera* is paralleled by the multiplication of species carried on by some authors, who seize upon every minor distinction which, often on insufficient *data*, they imagine to be constant and important, but which Hooker and Baker, with the more ample materials for study at their command, have found to be mere variations, due to situation and climate. "After upwards of half a century," said Sir W. Hooker, in the preface to the first edition of the *Synopsis* (only 48 pages of which were in the press when he died, and the rest of which was written or completed by Mr. Baker, with the aid of the notes and materials left by the projector of the book), "more or less continuously passed in the study of ferns in the richest herbarium of that order in the world (his own) and latterly with the aid of the finest in cultivation (that of the Royal Gardens at Kew)"—formed mainly by the exertions and ability of Mr. John Smith, a distinguished pteridologist—"and after the devotion of fully half that number of years to the preparation and publication of the '*Species Filicum*,' the author feels satisfied that these doubtful and imperfectly described species form the greatest obstacle to any satisfactory advance in descriptive pteridology." The numbers of species given by Sir W. Hooker in his "*Species Filicum*" is 2,401, but he points out that, according to Mr. Thomas Moore's enumeration, in his "*Index Filicum*," these are equivalent to 2,782. From the *Synopsis* Sir W. Hooker intended to exclude many species which he had admitted into the "*Species Filicum*," in deference to authors of reputation, but which were imperfectly described, and of which he had seen neither specimens nor figures. After the preface was written, additional collections were received at Kew, and the work had to be enlarged by one-tenth; and yet the total number of species admitted and described in the first edition was only 2,235. The number of new species admitted in the 2nd edition is not stated in the preface, but, by a hurried enumeration, I find it to be 433—one species belonging to a new genus—besides many varieties, not admitted by Mr. Baker to be entitled to specific rank. The total number of species of ferns described in the *Synopsis* is, therefore, 2,668.

Before Hooker and Baker's "*Synopsis Filicum*" first appeared, MAJOR (now COLONEL) R. H. BEDDOME, Conservator of Forests in the Madras Presidency, making good use of his opportunities, had begun, in 1863, the publication of a series of valuable works on the Ferns of India. These are—"The Ferns of Southern India," and "The Ferns of British India," the latter excluding the species described in the former. The first of these books, in one volume, printed at Madras, had reached a second edition in 1873. It contains 271 plates of

ferns, with descriptions. The later work, in two volumes (Madras, 1863-68), contains descriptions and plates of 300 ferns. A supplement to both works was published in 1876 : it contains a revised list, classified nearly according to Hooker and Baker's system, and 45 plates of previously undescribed species. Colonel Beddome allowed (species and varieties with separate numbers)—

In India	...	...	...	631 species.
In Southern India	...	...	...	320 "
In the Trans-Gangetic Peninsula	...	...	...	330 "
In Northern India	...	...	...	405 "

and, in the opinion of Mr. C. B. Clarke, he had nearly exhausted the ferns of India. Get Beddome's earlier books, therefore, if you can ; but I am afraid that "The Ferns of British India" is out of print. These books are valuable, however, chiefly for the plates, and many of these the author admits, in his Handbook published in 1883 (already referred to above), to have been wrongly named. The Handbook* alone should be looked to for the descriptions of the species. It is, as the author says in his preface, a digest of the information on Indian Ferns contained in Sir W. J. Hooker's "Species Filicum," the "Synopsis Filicum," Mr. J. Smith's "Historia Filicum," also of Mr. Clarke's "Ferns of Northern India," and of Colonel Beddome's own works, "The Ferns of Southern India," and "The Ferns of British India." "The generic nomenclature is," the author says, "with few exceptions, that of the 'Synopsis Filicum,' but the sub-genera have been raised to the rank of genera ; this avoids the inconvenience of double generic names, and may be admitted on this score even by those who do not consider the wide difference in habit of such genera as *Phegopteris*, *Polypodium*, *Pleopeltis* and *Drynaria* of any value generically, and who base their genera on the *sori* alone, without reference to habit, venation, or veneration. The geographical limits of the work comprise the whole of British India, Ceylon, and the Malay Peninsula." From an abstract now made, it appears in the Handbook that there are 87 genera, according to Beddome's classification, in Northern India, and 410 species, or forms which some botanists deem to be species, and that of these about 64 are, if not good species, well-marked forms, or so-called varieties. Something may be said, further on, about the distinction which botanists make between species and varieties. In Northern India, to the west of Nepal, there are, according to Colonel Beddome,

* Handbook to the Ferns of British India, Ceylon and the Malay Peninsula. By Colonel R. H. Beddome, F. L. S., late Conservator of Forests, Madras, with 300 illustrations. Calcutta : Thacker, Spink and Co. 1883.

168 species and varieties capable of being distinguished, of which 26 are varieties. Out of the 168, there are 8 species against the names of which, in my abstract, I have put a mark, either because the author's citation of the locality is indistinct, or because he appears to have been in error. But, on the other hand, many species are known to exist in North-Western India which Colonel Beddome does not credit to that region. As mentioned in an earlier part of this article, the present writer was able, in 1881, to add about 25 species to the 142 which Mr. Clarke named in his "Review" as being found westward of Nepal. This brought the number up to Beddome's doubtful total in 1883. But 167 or 168 is very far short of the actual number; for, after striking out a number of species which both Clarke and Beddome appear to state as being found in the North-Western region, the present writer finds satisfactory evidence of the existence there of over 200 distinct ferns. Beddome would certainly have to add to his number, even if he had also to subtract from it; for, in the *Journal of Botany* for March, 1889, he described two new *Athyriums*, from specimens shown to him by the present writer, who had not up to that time tried his hand at writing descriptions. One of these plants, *Asplenium* (*Athyrium*) *Duthiei*, (Bedd.), had been collected in 1883, 1884 and 1885 by Mr. J. F. Duthie, at three separate stations, in Tiri Garhwal, British Garhwal, and Kumaon, but had been laid in at Kew along with a fern of a different genus, namely, *Nephrodium Brunonianum*. The other *Asplenium* (*Athyrium*) *Macdonelli* (Bedd.), had been collected a number of years previously by Mr. J. C. McDonell, Deputy Conservator of Forests in Chumba, in one locality only, and then noted by the present writer as probably a new species, and when at Kew together, in 1888, they drew Colonel Beddome's attention to the specimens. Mr. McDonell had gathered only two fronds—one with the rhizome, or creeping stem, attached; and as, on his return to India, he was posted elsewhere, he has not been able since to collect more. This is, therefore, one of the greatest botanical rarities in the world, and the present writer cherishes his specimen accordingly. Is there any postage-stamp known of which only two specimens exist? If so, what is their value? The value of these fern specimens is, however, liable to depreciation owing to the possibility of the plant being found again in Chumba or elsewhere.* A probably similar case has just occurred. On going over a collection of ferns, made this autumn in Kumaun by Mr. E. W. Trotter, of Rawalpindi and Murree, two specimens, fronds only, have been observed of what is probably a new *Nephrodium* (*Lastrea*).

* See further on.

Such are the chances and possibilities of fern-hunting ; but in the field the collector, however sharp-eyed, may sometimes overlook a novelty and not know that he has got it until he is hundreds of miles away. And, although he has a record in his Field-book of the general locality and date of collection, he may not remember the particular spot where the specimen which proves to be so rare was got, and the plant may thus never again be collected.

Ferns, however, owing to the method by which they are reproduced, from microscopic spores which, issuing like a puff of smoke from the case in which they are matured, are easily wafted long distances by currents of air, and which, moreover, are endowed with extraordinary vitality, are apt to increase their geographical range, and it is this that probably accounts not only for the rapid local spreading, which is sometimes observed, but also for the isolated occurrence of certain species hundreds of miles away from localities where they are found in plenty.

As instances of local spreading, may be mentioned *Polypodium* (*Niphobolus*) *flocculosum* (Don), a common fern in the Dehra Dun and upwards to 5,000 feet, which ten or twelve years ago was hardly ever seen along the road between Dehra and Rajpur on any other than mango trees, but is now found in plenty also on toon trees. This may, however, be partly owing to the bark of the toon trees getting rougher as the trees grow older, and thus affording better foothold for the plants. Also, *Polypodium* (*Goniophlebium*) *lachnopus* (Wall), an arboreal fern, is spreading all over the shady parts of Mussoorie, where ten years ago it was rare. *Polypodium* (*Phymatodes*) *cyrtolobum* (J. Smith), (see Clarke's "Review" p. 563), which was discovered in "The Park," Mussoorie, by the Messrs. Mackinnon in 1880 or 1881, and was then known on two or three trees only, had by 1887 spread considerably. This fern is said by Clarke to be very common from Nepal to Bhootan ; and probably the east of Nepal is meant, for collectors are not allowed to traverse Nepal ; but it had not been got west of Nepal before being found in Mussoorie. It was afterwards found by Mr. Duthie, in 1834, in one locality in Kumaun. As a remarkable instance of isolated occurrence of a species far from its usual haunts, may be mentioned (*Asplenium* *Athyrium*) *drepanophyllum* (Hook. and Baker). This fern was described by Beddome, in his "Ferns of Southern India," as *Athyrium falcatum* (Bedd.), and the only localities given were a hill near Mahableshtar, in the Bombay Presidency, and the Anamalai Hills in South India. It was afterwards found by Mr. Clarke on Parasnath mountain in Bengal, and subsequently by Mr. W. F. Blanford at Pachmarhi in the Central Provinces. But, about the date of the former finding, it was found also

on Badraj, the mountain over-hanging the Jumna River at the west end of the Mussoorie range of the Himalaya, about the same number of hundreds of miles from both Pachmarhi and Parasnath, and it has never been reported from any intermediate station. The elevations at which this fern has been found are from 4,000 to 5,500 feet, so it is not very probable that it grows anywhere near a line joining Pachmarhi and Mussoorie; but it may possibly occur on the outer Himalaya to the westward of Mussoorie.* Another instance of isolation is *Asplenium tenuifolium* (Don), which is said to be found on the higher mountains of Southern India and Ceylon, in Khasia, altitude 4,000 to 5,500 feet, and on the Himalaya from Nepal (East Nepal) to Bhootan, altitude 5,000 to 9,000 feet. This fern was found near Mussoorie by the Mackinnons in 1878, and pointed out by them to the present writer in 1881 *in situ*, and it has never been reported from any other station in North-Western India. Another instance is a *Nephrolepis*, either *volubilis* (J. Smith), or *ramosa*, (Beauv.), a specimen of which was gathered by the present writer at Naini Tal, in 1861, at the foot of Chinar, at about 6,500 feet elevation. The specimen was without fructification, but was pronounced to be a *Nephrolepis* by both C. B. Clarke and the late W. S. Atkinson when shown to them in 1872. Having a climbing or trailing habit, it could not be *N. cordifolia*, the only other species of this genus ever got in North-Western India. *N. volubilis* is a low-level fern, found in Malacca and Borneo, and in India, in Sylhet and Chittagong: *N. ramosa* grows in Tropical Africa, Australia, the Philippines, Fiji, and the Malay Peninsula, and in Ceylon at 2,500 feet. It has not been recorded from India. In September 1890, a high-level fern was found by Mr. T. Bliss, of Simla, on the Thibet road, some 50 miles from Simla, which had never previously been got west of Sikkim. This is *Davallia Clarkei* (Baker), according to the Synopsis Filicum, but it had previously been named *Acrophorus Hookeri* by Moore, in his "Ferns of India." Clarke entered it as *Davallia dareæformis* (Levinge) in his "Review," Mr. H. L. Levinge and he having mixed it up with *Polypodium dareæforme* of Hooker, a fern which is very like it in cutting, but which has no covering (*indusium*) over its *sori*, or spore groups, whereas the *Davallias* and *Leucostegias* have distinct and persistent *indusia*: *P. dareæforme*, moreover, grows at a much lower level. In subsequent papers, published in 1888 and 1889, Mr. Clarke has separated these two ferns, and put his own name down as the author of *Davallia dareæformis*, while leaving *Polypodium dareæforme* to Hooker. He does so, apparently, because Mr. Levinge continued to maintain that there was

* Since the above was written, one small plant has been seen in the collection of Mr. Gamble, ticketed Naini Tal, 2,000 feet, Levinge.

here only one plant, and, following Mettenius, that the presence or absence of a minute and fugitive scale over the *sorus* does not constitute a generic distinction. Leaving these doctors to differ, I must unhesitatingly put Mr. Bliss's fern from the Simla region among the *Davallias* (*Leucostegia* sub-genus); for it has remarkably large and persistent *indusia*, as broad, indeed, as the ultimate segments of the frond. It is scarcely to be supposed that really no plants of this and the other ferns, which I have mentioned as being found in isolated stations in the North-West Himalaya, far from their general habitats, grow between Simla, or Mussoorie, or Naini Tal, and Sikkim; but, unfortunately, the 500 miles of Nepal territory which intervene, are forbidden ground, and the probable occurrence of these plants all along the Himalaya between the known points cannot be verified.

Besides the books I have been referring to, namely, Hooker and Baker's "Synopsis Filicum," Clarke's "Review of the Ferns of Northern India," and Beddome's books, there is one other work which, though devoted solely to the ferns of a limited region, is deserving of notice, as being the fruit of a number of years of loving study. This is "A List of the Ferns of Simla, in the North-Western Himalaya, between Levels of 4500 feet and 10,500 feet, by Mr. H. F. BLANFORD, F. R. S.," a paper which was published in the Journal of the Asiatic Society of Bengal. Vol. LVII, Part II, No. 4, 1888. Mr. Blanford, as Meteorological Reporter to the Government of India, summered at Simla for ten years, and, particularly during the last five of these, availed himself of such opportunities as offered to collect and examine the materials for a list of the local ferns. But his work was restricted within certain limits and altitudes, and, beyond the immediate neighbourhood of Simla, his examination of the hill slopes did not extend below an altitude of 8,000 feet. His chief hunting-ground beyond Simla itself was the Thibet road as far as Baghi, and the mountains adjacent, up to 10,500 feet. Mr. Blanford, in the introduction to his list, deplors the bareness of the ridge of mountains on which Simla stands, and which, dividing the drainage of the Sutlej from that of the Tons and Jumna—the former a tributary of the Indus, the latter of the Ganges—is, therefore, a part of the main watershed of India. On this ridge "forests were at one time dense and vigorous, but for a distance of thirty miles" (eastward of Simla), "most of those on the Simla ridge have now been either destroyed and cleared," or "present little more than stretches of brushwood and small coppice." This is, therefore, now but poor ground for coolness and moisture-loving plants such as ferns. "A few remnants, however, still exist at Mushobra and Mahasu; and the northern faces and summits of Kamalhari and Hatu are still cover-

ed with magnificent forests which afford rich ground for fern-collectors and, indeed, for botanists generally. In the glens and valleys below Simla, destruction has been equally at work." Mr. Blanford believes several species became extinct during his time, and, in a list, privately printed, of ferns collected by another amateur, Dr. Cuttall, between 1875 and 1877, twenty-two species and varieties are enumerated which Mr. Blanford did not meet with. Dr. Cuttall's list included 86 ferns, Mr. Blanford's 101, five of which he thought doubtfully distinct; but 20 of these had not been described, or at all events identified as Indian ferns, when Dr. Cuttall wrote, and the latter collector evidently gave wrong names to some well-known species.

While, therefore, rejecting 22 of Dr. Cuttall's species and good varieties, Mr. Blanford claims only 12 distinct forms, well known as Indian in 1877, which escaped the former collector. Several of the rejected 22 have, however, since been found in the Simla region by Mr. Bliss. Mr. Blanford's list, besides being a valuable guide to the local collector, contains many interesting observations on the habits of the plants, and the distinctive characteristics of the newer and more obscure plants. In some cases, such as naming one of the commonest ferns of the North-Western Himalaya *Asplenium* (*Athyrium*) *Schimperii* (A. Br.), instead of calling it a variety of *Asplenium Filix-fœmina* (Bernh.), he has very properly corrected Clarke. This is the first time that *A. Schimperii* has been published as an Indian fern; but the credit of having first identified it as such is due to the Mackinnons of Mussoorie, who, so long ago as 1880 or 1881, pointed out to the present writer the essential distinction between it and *A. Filix-fœmina*, namely, that the former has a widely creeping and branching rhizome, and throws up fronds therefrom, quite separated from each other, while *A. Filix-fœmina* grows in separate tufts, with fronds springing from the apex of an erect caudex. This observation of the Mackinnons was communicated to Mr. Levinge, then one of the most enthusiastic pteridologists in India; and, it is believed, it was passed on by him to Mr. Blanford. This distinction in habit of growth, I may here mention, applies also to *Asplenium* (*Athyrium*) *pectinatum* (Wall), to which Blanford rightly gives specific rank, but which other authors enter as a mere variety of *A. Filix-fœmina*. No better specific distinction exists, among ferns at least. Were it not for this, *A. Duthiei* (Bedd.) might just as well have been called a variety of *A. Filix-fœmina* as any Indian fern has been, and doubtless, it would have been so called had it been discovered ten or twenty years earlier, when attention was not much paid to the mode of growth of ferns. A fern-collector should never forget that it is necessary in many cases to have the whole

plant, from root to tip of frond. It is greatly owing to the want of complete stipes (stems) and rhizomes or caudexes, and consequently of the often distinctive scales which clothe them, that so many species are either incorrectly named in herbariums or remain doubtful. The scales on the rhizome of *Davallia* (*Leucostegia*) *Hookeri* (Moore), mentioned above as new to North-Western India, are very distinctive, and are said by Beddome to differ somewhat from those of *Ploypodium darceiforme* (Hook.), with which fern Levinge would unite it.

In other instances Mr. Blanford gives in to, or follows, Mr. Clarke, where, I think, he is wrong, especially in calling specifically distinct plants varieties of others. A notable instance of this weakness, shall I call it, is when, after saying of *Onychium japonicum* (Kunze), that it is very rare at Simla, he says of what he, following Clarke, calls *O. japonicum*, var. *multisecta* (F. Henderson): "This is one of the commonest Simla ferns, growing abundantly on the ground both on forest and on the open hill side." The anomaly of calling a very common fern a variety of a very rare one, does not appear to have struck Mr. Blanford. The two ferns are to me, as well as to Colonel Henderson, quite distinct, and I believe that everywhere else where they are found, *O. multisectum* is much the most common. *O. japonicum*, however, was long first described, and the Kew theory, or at least practice, is to make the more recently described fern a variety only, if by any pretext it can be brought near the older species. In another case Mr. Blanford seems to have been persuaded at Kew to reduce to a mere variety of the well-known *Cheilanthes farinosa* (Kaulf), a fern which, in a paper entitled "The Silver Ferns of Simla and their Allies," read before the ephemeral Simla Natural History Society in 1886, he had previously, as it seems to me, on good grounds, set up as a distinct species. *Cheilanthes anceps*, as found between 3,500 and perhaps 4,500 feet of altitude, on both sides of the Mussoorie ridge, by Blanford and myself, and by me and others also in Kumaun, is a fern very distinct from *Cheilanthes farinosa*, and quite as worthy of specific rank as most others. It is much stiffer and darker-coloured, as to stipes and upper surface of frond, than *Cheilanthes farinosa*, and the under side of the frond is much whiter—milk white is the word for it, or perhaps snow-white—, and the shape of the frond is, as Mr. Blanford points out, different from that of the fern which he takes as the type; also, the scales on stipe are very different from those of *Cheilanthes farinosa*, which latter he does not correctly describe. By "induction" we cannot arrive at the conclusion that Mr. Blanford's fern is derived from the plant described and named by Kaulfuss; but by "deduction" from the theory that any subsequently des-

cribed fern at all like *Cheilanthes farinosa* must necessarily be a variety of it, it would of course be easy. I stick to *Cheilanthes anceps* as a good and true species ; but as its original proposer refuses any longer to stand by it, I must myself assume the paternity. There is more difficulty about *Cheilanthes grisea*, which Mr. Blanford set up, along with *Cheilanthes anceps*, but has since knocked down again ; and I suspect that the highest-level specimens which he showed to me as *Cheilanthes anceps*, ought rather to be called *Cheilanthes grisea*.

This article has been drifting rather more into details than was intended, but what has latterly been said will serve to show how great room there is for study among the ferns of even a corner of India. While mentioning the books that should be studied by those whom it is my object to attract, I have already named several notable collectors and students of the Ferns of India. I must now say something about the labours and discoveries of those who have so greatly added, of late years, to the number of species to be found in Northern and especially North-Western India. Possibly the present writer began before any of the others whom I will now mention (except Dr. George King), as he collected in Bhagelkhand in 1860-61, and in Kumaun in 1861, and is still at it ; but his opportunities have been few and far between, and he has not so much had the advantage of being able to collect while travelling on duty, or while drawing full pay as a Government official, as some other collectors have had. Most of the discoveries he has made have been among the collections shown to him by others. Even from among the specimens collected in India in former days, by such botanists and collectors as D. Don, Wallich, Edgeworth, Hook. *fil.* (Dr., now Sir, J. D. Hooker), T. Thomson, Jerdon, Brandis, Scott, Simons, Jenkins, Masters, &c., something may yet be gleaned. For example, among the ferns distributed in 1883 from the Calcutta Botanical Gardens' Herbarium to the then infant collection of ferns in the Saharanpur Herbarium, the present writer has detected *Polypodium zerlanicum* (Mett.), among specimens which had been collected long ago by T. Thomson. The ticket bears only the name, or signature, of the collector, but there seems no doubt, from the surroundings, that the specimen was collected in Sikkim, or elsewhere in North-Eastern India, perhaps forty years ago : but, according to the books, this fern belongs purely to Ceylon ; and among these collections of former days many specimens are incorrectly named, according to present views at least.

There is plenty of work to be done yet, even in the Kew and British Museum Herbariums, in sorting and correctly naming the specimens collected from the time of Wallich downwards. Take, for example, one of the commonest ferns of the North-

West Himalaya, not even indicated in the "Synopsis Filicum," or in Beddome's Handbook, and not easily detectable in Clarke's "Review," where it appears under the disguise of *Nephrodium Filix-mas* (Rich.), var. 2, *normalis* (Pl. LXVIII, fig. 2). It is sometimes very difficult to write a description of a fern which will convey any definite idea to the mind of a person who has not an authentic specimen with which to compare it; and it was not for several years after he had been in possession, by the courtesy of the author, of a copy of Mr. Clarke's "Review," that the present writer was able to identify the fern named above. Mr. Clarke gave no synonym for it; and, as localities, he gave only Sikkim, altitude 4,000 to 7,000 feet, and Khasia, altitude 4,000 to 5,500 feet; and he added—"Not very common." But in 1885, among a number of ferns received from Mr. Clarke, two specimens were found of this fern, named as above, and on the ticket of one of them was written—"My typica." As to these specimens the remark was sent to Mr. Clarke—"If the name *normalis* means that this fern is the normal form of *N. F.-mas*, I demur entirely. It is, to my eye, entirely dissimilar. But if this is what is meant, why make the plant a variety? This is the common *Lastrea* at Mussoorie." "I have seen the typical *F.-mas* in India perhaps only at Simla. Where the type is not, how can there be a variety?" Mr. Clarke said that his variety "*normalis*" was extraordinarily like a fern he used to pick in Hampshire; and, in another place, "You say '*normalis*' is the commonest form in India: it was because I thought it one of the commonest Indian forms that I named it '*normalis*.'" What was said to Mr. Clarke was, that this was one of the commonest ferns (not forms) in Mussoorie. The present writer had not thought of connecting it with *N. Filix-mas*; but he then observed, among specimens collected at Simla in 1871, a few which, at the time, he had thought like *N. F.-mas*, and which proved to be identical with Clarke's "*normalis*," and also with the common *Nephrodium (Lastrea)* of Mussoorie. And when he went home in 1888, and turned up the fern at Kew, he found numerous old specimens of the fern, identical with Clarke's own, freely scattered through bundles marked as containing not only *N. Filix-mas* and its varieties, but also *Nephrodium rigidum* (Desv.). These had been collected at various times by Jacquemont, Griffith, Bacon, Edgeworth, Winterbottom, Strachey, T. Thomson, Hook. *fil. et* Thomson, Anderson, Duthie, Aitchison (one of whose specimens from Afghanistan is exactly Clarke's "*normalis*" from Assam, paler in colour, but with dark scales) and others in Kashmir, Simla, Mussoorie, Kumaun, China, Georgia and Syria, and, finally, at least six specimens collected by Clarke himself in Kashmir, Dalhousie (Chumba), Sikkim and Assam. One of the sheets

was from Thomas Moore's herbarium, purchased by Kew in March 1885, and the ticket or superscription on it was "261, Herb. Ind. Or., Hook. *fil. et* Thomson, *Lastrea odontoloma*, (Moore), *Aspid*; *denticulatum*, Wall., Hb., Hk., Hab. Simla, Regio Temp., altitude 7,000 to 8,000 ped. Col. T. T." On mentioning this discovery to Colonel Beddome, he wrote: "Clarke's *normalis* is Moore's original *odontoloma*,—*Vide* my specimens in Moore's Herbarium so named. Moore named my original specimens and I figured the fern under that name in the 'Ferns of South India.' Years afterwards some of the Bengal pteridologists declared that the Himalayan fern we now call *odontotoma* was the true species, and I bowed to them and thought I had made a mistake, and corrected it in the 'Ferns of British India,' but, on going through Moore's herbarium at Kew, three or four years ago, I came across his *odontoloma*, which all proved to be *normalis*. I fear you will not persuade me that *normalis* is not a form of *Filix-mas*." When Mr. Baker's attention was called to this question, he very kindly allowed all the specimens that were said to be Moore's plant to be collected together out of various wrappers marked *N. Filix-mas*, and *N. rigidum*, and to be kept in a separate sub-wrapper, and Mr. Clarke said he would write fresh tickets for them, referring them to Moore's *Lastrea odontoloma*, or at least admitting that they were the plant he had named *N. (Lastrea) F.-mas*, var. *normalis*. There were about 25 sheets so selected and set aside. The present writer then also presented some large perfect specimens of *N. odontoloma* (Moore), collected by himself at Mussoorie, to the Kew Herbarium, and others to the British Museum, Natural History Department. He believes it is now admitted that *N. rigidum* (Desv.) has not been found in India, and that Clarke's var. *normalis*, of *N. F.-mas* must be dropped. But he has still to fight for the recognition of several other so-called varieties of *N. F.-mas* as good and independent species. The only specimens he has seen which may be *N. F.-mas*, are a few from Kashmir, collected, of late years, by Mr. E. W. Trotter. The specimens from Simla alluded to above are *N. Schimperanum*, (Hochst.), which is a fern of quite different habit. In dismissing *Lastrea odontoloma* (Moore) from present notice, it may be remarked that the farther north-westward this fern is found, the more developed and finely-cut it appears to become. Mr. Clarke's Eastern Bengal form is, in fact, a poor and stunted one, due to a warm and moist climate.

Another fern, which the present writer endeavoured to identify at Kew a few years ago, is found in plenty in and near Mussoorie, by those who look for it, on moss-covered moist rocks in shady places. It is generally called *Asplenium fontanum* (Bernh.); but so also is another fern, got at higher levels

in the Himalaya, of which the present writer has numerous specimens, but which he has not seen growing. Ever since 1861, when he gathered a plant of it by the side of the Naini Tal lake, he had believed the fern in question to be the Nilgiri fern, which Beddome described and figured in his "Ferns of Southern India" as *Asplenium exiguum*. But Beddome, on being shown some Mussoorie specimens, said they could not be his fern, as the fronds of his were "more or less extended at the apex into a naked tail and often bearing a young plant (*vide* F. S. I., Pl. CXLVI)." Moreover, Beddome, in his Supplement of 1876, had withdrawn his species and entered the fern as only a variety of *A. fontanum* (Bernh.), and this he had adhered to in his Handbook of 1883. The present writer knew and saw that young plants were sometimes found on all the pinnae of the Mussoorie fern, but he had no specimen at hand which was prolonged and proliferous at the apex. At p. 216 of the 'Synopsis Filicum,' 1st edition, Mr. Baker alluded, under *A. fontanum* (Bernh.), to *A. exiguum* (Bedd.) from the Nilgiris, as seeming to be a less divided form of *A. fontanum*, with narrow fronds and an ebeneous rhachis; and he went on to say—"A similar plant has been gathered in Mexico by Mr. Glennie, &c." But in the 2nd edition, p. 488, Mr. Baker set up the American fern as a new species—" *A. Glenniei* (Baker); Hab. Mexico, Consul Glennie, Bourgeau, 252, very near some of the forms of *fontanum*." On seeing this, it was pointed out to Mr. Baker and Colonel Beddome that the specimens of *A. Glenniei* in the Kew Herbarium were merely the common Mussoorie fern, which had been collected as *A. exiguum* (Bedd.). Mr. Baker objected that Mexico and the North-Western Himalaya were very widely separated habitats, while Colonel Beddome said that neither the North-Western Himalayan nor the Mexican fern could be his *A. exiguum*, because the rhachis of the latter was elongated to a tail which rooted at the point. It was also noted at Kew that *A. micropteron* (Baker), another new creation of Mr. Baker's, which had been entered in the 2nd edition of the Synopsis as a congener of *A. fontanum*, Habitat—San Luis, 7,000 feet., Pearce,—"rhachi much produced beyond lamina, rooting at the tip,"—was like *A. exiguum*, even without the character just quoted. In the British Museum, among *A. fontanum* (Bernh.), there is one plant, ticketed—"N. S. Pacific Coast Flora (new to N. S.) var. 'Conservatory,' Hnacknea Mts., Ariz., August 1882, Lemmon Herbarium, Oakland, California," which is exactly Mussoorie *A. exiguum*, and is proliferous on the pinnae, though not on the apex of the frond. Since my return to India I have found that this "production of the rhachis beyond the lamina, and rooting at the tip," as Baker calls it, or being—"more or less

extended at the apex into a naked tail, and often bearing a young plant," as Beddome puts it, is a normal, though not invariable, character of the Mussoorie plant, and I have no doubt that there is here, in *A. exiguum* (Bedd.) *A. Glenniei* (Baker), and *A. micropteron* (Baker), only one species, quite distinct, however, from the higher-level plant which is called by Indian botanists *Asplenium fontanum*. But I have some doubts whether the high-level Himalayan fern is the European *A. fontanum*: doubts which I should be glad if some one now in Europe would clear up.

DR. GEORGE KING, C.I.E., F.R.S., now Director of the Botanical Survey of Northern India, and for many years Superintendent of the Calcutta Botanical Garden and the Government Cinchona Plantation in Sikkim, is, as has been said above, probably the oldest student of ferns now in India, for I have seen specimens collected by him in 1857, and I believe that he loses no opportunity of adding specimens of ferns to the herbarium in Calcutta, which, even in 1872 when I saw it first, was very rich in that order of plants. Dr. King does not despise ferns, as too many botanists do, and it is believed that he has a very perfect knowledge of Indian and Malayan Peninsula species. I look forward to some day being able to study in the Calcutta Herbarium, where not improbably some points might be solved for which a solution might not be found at Kew.

MR. C. B. CLARKE'S labours among ferns have already been noticed; and I will only add that, considering the amount of work he has done in general Botany, the trouble he has taken to write about ferns, is a proof of the fascination they exercise upon those who collect and study them. Mr. Clarke spends his time, since his retirement some years ago from the service of the Government of India, in the Herbarium at Kew, as a voluntary worker; and I believe he still renders material help in the production of the Flora of India, in which he was formerly employed for some years, while still on the active list. Since he retired, he has contributed several papers on the ferns of India to the Transactions of the Linnean Society, one of them conjointly with Mr. Baker. When the present writer made Mr. Clarke's acquaintance in 1872, he met also the late Mr. W. S. ATKINSON, also of the Education Department in Bengal. Mr. Atkinson had a good collection of ferns, most of which are now, it is believed, in the possession of MR. H. C. LEVINGE, in Ireland. In July 1871, the present writer collected a few ferns at Simla, and showed them to Mr. Levinge who was then his immediate superior in Government service in Behar; and the result was that, the same autumn, Mr. Levinge, on taking privilege leave

to Darjeeling, and falling in with Mr. Atkinson and Mr. Clarke, took to fern-collecting most enthusiastically; and he continued the pursuit and the study of ferns generally until he left India in 1883. Mr. Levinge collected chiefly in Sikkim, but also in Kashmir, Garhwal, and in the mountains of Southern India, and in Europe, and we are indebted to him for many hundred specimens. He has acquired also specimens of ferns from all countries, and has now nearly 2,000 species in his herbarium.

Mr. Levinge worked latterly with Mr. J. S. GAMBLE, M.A., then Conservator of Forests, Bengal, and now Director of the Imperial Forest School, Dehra, a first-rate all-round botanist, who, however, does not despise ferns, and collects all he comes across. After the Calcutta collection, Mr. Gamble's is the largest that the present writer knows of in India; and now that it is in Dehra, he hopes to solve various problems by its help. One thing which he has already made out, is—that two perfectly distinct species of *Botrychium*, the last genus in the order of the "Synopsis Filicum," have hitherto been treated as one by all the writers on India ferns. All the specimens from North-Western India which he has seen ticketed "*Botrychium daucifolium* (Wall.)," belong to *B. ternatum* (S. W.), not hitherto recorded from India; but both species have been found in North-Eastern India.

A disciple of Mr. Gamble and Mr. Levinge, while they were in Sikkim, was MR. J. C. McDONELL, of the Forest Department, now on deputation to Kashmir, whose namesake *Asplenium* (*Athyrium*) *Macdonelli* (Bedd.) has been mentioned above as one of the greatest botanical rarities in this world. Mr. McDonell, to a light and active frame, unites a very sharp eye, and, after being transferred to the Punjab, and the charge of the Chamba Forests, he botanised actively, and contributed some very interesting notes of his tours to *The Indian Forester*. I have received numerous specimens from him during the last ten years; and from among these, and his own reserved collection, in spite of the naming of the specimens having been revised at Kew, I hope to establish several more new species. The ferns of Chamba, collected by Mr. McDonell, are fully 120 in number,—a number much greater than ten years ago was thought possible to be got in any one district or territory in the North-Western Himalaya. Be it remembered that 142 was the number of ferns known to Mr. Clarke in 1879 as having been collected in the whole Himalaya westward of Nepal. Mr. McDonell has lately sent a big bundle of ferns from Kashmir to Mr. Gamble, and among these there a new species of *Asplenium* (sub-genus *Diplazium*), and (alas!) many specimens of *Asplenium* (*Athyr.*) *Macdonelli*, (see *ante*).

I look forward to other important additions to the Fern-Flora of that country, when Mr. McDonell gets time to explore it.

MR. T. BLISS, of Simla and Lahore, is an ardent amateur and collector of ferns, and a successful cultivator also. He has already been mentioned as having added considerably to the number of the ferns of the Simla Region, as enumerated by Mr. Blanford, and as the discoverer of the only habitat of *Leucostegia Hookeri* (Moore) in North-Western India. I am indebted to Mr. Bliss for many and good specimens.

The most recent addition to the noble army of fern-collectors that I know of, is a disciple of Mr. McDonell. On the eve of retirement from a long and distinguished service, several times specially extended, under Government, and having tried several pursuits without finding any one that suited him and promised to provide adequate employment for his still abundant energy, MR. E. W. TROTTER, of the Punjab, consulted Mr. McDonell as to what he should take up. Mr. McDonell said—"Ferns"; and Mr. Trotter, after five or six years of sometimes hard work, has not repented having taken up the subject. In the Punjab, he has collected in Hazara, Kashmir, Chamba, Lahoul, Kulu, Spiti, Kangra, and along the Thibet road from Simla to Baghi; and in the North-Western Provinces he has done a little in the Dehra Dun, and, this year, covered a good deal of ground in Kumaun, during which trip he has, I think, found a new *Nephrodium* (*Lastrea*), and perhaps other novelties; besides in other ways adding to the North-Western India list. Mr. Trotter is working at an annotated list of the Ferns of the Punjab, including the Foreign and Tributary States from the Indus to the Jumna, and, including only species or distinct so-called varieties, which he has personally collected, or possesses, or has seen in the possession of others, and seven others to which Mr. Clarke in his "Review" assigns a Punjab habitat, and which are to be seen at Kew, he had sometime ago enumerated 156 distinct plants, distributed thus:—

Himalayan Tract	...	{	Hazara	...	...	42
			Kashmir	...	...	81
			Chamba	...	...	123
			Kangra, &c.	...	...	91
			Simla region	...	...	114
Punjab Salt Range	...	...	...	...	...	5
Alluvial Plains	...	...	...	...	...	8

The Trans-Indus Districts and States are not included.

MR. J. F. DUTHIE, B.A., the Director of the Botanical Department, Northern India, while he was Superintendent of the Botanical Gardens at Saharanpur and Mussoorie, was

a diligent collector of ferns, as well as of flowering plants; and, having then the opportunity of making excursions in the higher Himalaya, he greatly added to the Saharanpur collection. His discoveries of *Cystopteris montana* (Link.) for the first time in India, and of *Athyrium Duthiei* (Bedd.) have been already mentioned; and I may add that, in 1884, he found *Asplenium ruta-muraria* (L.) in Kumaun and West Nepal, at elevations of 11,000 to 12,000 feet, a fern which before had, in India, been found only in Kashmir and Baluchistan, at elevations of 5,000 to 8,500 feet, by T. Thomson, Levinge and Clarke. *Cheilanthes Duthiei* (Baker) from British Garhwal, is another interesting novelty of his collecting. Mr. Duthie loses no opportunity of acquiring ferns, not only in India, but from all parts of the world, by exchanging; and the mounted collection at Saharanpur, which, when he took over charge, could be packed up in a small parcel, now extends to about 4,000 specimens. The Prefatory Note to a Catalogue of the Ferns in the Saharanpur Herbarium, which was printed and published by authority of the Government of India in 1890, states that:—

“In December 1889, on the invitation of Mr. J. F. Duthie, “Director of the Botanical Department, Northern India, Messrs. “C. W. Hope and E. W. Trotter proceeded to Saharanpur “for the purpose of arranging, examining and cataloguing the “ferns in the Government Herbarium at that place. They “were engaged on the work for a fortnight, and the catalogue “which is slightly abridged in the following print, is the result. “The task of critical examination was undertaken by Mr. Hope, “and he has determined nearly every specimen, although in “comparatively few instances, owing to the imperfect condition “of some of the specimens, and to the limited time at disposal, “there being more than 3,300 sheets to examine, the deter- “mination has been incomplete. The work of compiling “the Catalogue was undertaken by Mr. Trotter, and for the “arrangement and accuracy of the unabridged manuscript “he is responsible, subject to the reservation that Mr. Hope’s “conclusions have in every instance been accepted, his refer- “ences and quotations only having been verified.”

The classification and nomenclature of the “Synopsis Filicum” of Hooker and Baker (2nd Edition), already in use at Saharanpur, was followed in the preparation of this Catalogue, and references were given to the pages of that work, and also, where necessary, to Clarke’s “Review,” Beddome’s Handbook, and other subsequent publications. From the print of the Catalogue, were omitted (a) strictly duplicates, and (b) specimens insufficiently authenticated. The name of the collector or contributor, the date of collection, the collector’s distinctive number, and the

locality of collection and altitude of every specimen were given, and also remarks on the specimens where desirable.

"The question of habitat," said the Prefatory Note, "is one of considerable importance, and on this point the fullest information obtainable, including altitude, has been given. Ferns from India—particularly Northern India—and from adjoining and botanically connected countries are of course of most importance here, and are accordingly placed first under each species arranged in the following order of localities:—

- (1).—Trans-Indus countries bordering on North-Western India, such as Baluchistan, Afghanistan and Gilgit;
- (2).—North-Western India, comprising the Himalaya east of the Indus as far as and including Western Nepal, the Punjab, Sind, the North-Western Provinces of the Bengal Presidency and Rajputana;
- (3).—North-Eastern India, taking in the Eastern Himalaya (including Eastern Nepal), the Lower Provinces of the Bengal Presidency and Assam;
- (4).—The Indian Peninsula, including the Central Provinces, the Central Indian Agency, the Bombay Presidency (except Sind), the Deccan, and the Madras Presidency;
- (5).—Burma;
- (6).—Ceylon;
- (7).—The Indian Archipelago and Malaya.

Then follow ferns from other countries."

Attention was given to the orthography of Indian names, Hunter's *Imperial Gazetteer* being taken as the guide. In order to adhere to the plan adopted by Messrs. Trotter and Hope, of following, so far as possible, the nomenclature of the "Synopsis Filicum" of Hooker and Baker, which was also that already in use at Saharanpur, Mr. Hope, it was explained in the preface to the Catalogue, had in many instances been obliged to do violence, more or less, to his convictions as to the specific entity of the plants which came to him for determination, and their affinity or non-affinity to the species to which they are referred in that work; but he had only in a few instances indicated his disagreement with the authorities quoted. He hoped ere long to compile an annotated list, perhaps to be confined to the Ferns of North-Western India, of which he knew most, in which he would arrange and name the species and so-called varieties according to his own lights. His views, however, not yet being in print, he could not refer to them, and he, therefore, deferred, for the nonce, to the practice of uniting, in some cases, very distinct plants under one name, or else calling them varieties of others, and of, in other cases, raising plants to the brevet rank of varieties which are removed from the type by only

size or development, or by differences caused merely by soil, exposure or elevation.

Intending collectors in India would do well to provide themselves with this Catalogue, in order that they may get an idea of the localities they ought to visit, and of the elevations at which the different species may be met with. We believe there are some copies for sale at the Saharanpur Herbarium. The Catalogue contains fifty-five genera of ferns, represented by 550 species. Of these species about 413 are to be found somewhere in the Trans-Indus countries, India or Burma, while about 137 are not so to be found. About 193 of the species represented are to be found somewhere in the Trans-Indus countries or North-Western India. It will be seen that there are plenty of vacancies in this collection, for the number of species from the countries, British India and included Native States, and Burma together, is only 413. against Beddome's 410 for Northern India alone. The herbarium at Saharanpur is of course available for study, and my readers, after making their collections in the North-Western Himalayan tracts, ought to make a point of devoting a few days to comparing them with the named specimens therein stored.

Perhaps before Mr. Duthie came to India, MAJOR HERSCHEL, R.E., was collecting ferns from the Mussoorie centre, and some of his specimens are to be found in the Saharanpur Herbarium and at Kew, whither he took his collection for determination, on leaving India, about 1880. It was from Major Herschel, I believe, that MR. PHILLIP MACKINNON and MR. VINCENT MACKINNON, of Mussoorie, acquired their love of ferns, which unfortunately business prevents them from gratifying to the full. For some five years (from 1878) they collected round Mussoorie and Chakrata, and made trips to the snowy range and into Thibet, partly with an eye to ferns. The result of the Messrs. Mackinnons' collections was a large addition to the number of ferns found in India west of Nepal, and also, as I believe, the discovery of several species new to India, if not to the world. Most of the 25 species which, as has been mentioned at the outset of this paper, the present writer in 1881 published as additions to Clarke's North-Western Provinces list, were found in the Mackinnons' collection; and further on, the stations in the Mussoorie range of the Himalaya for *Asplenium tenuifolium* (Don,) and *Asplenium drepanophyllum* (Baker), discovered by them, have been mentioned as showing how ferns are sometimes found growing isolated apparently by many hundred miles from their other known habitats. Growing close by *Asplenium tenuifolium*, at an altitude of about 4,500 feet, they also found, in 1878 or 1879, *Gymnogramme elliptica* (Baker), which Clarke had recorded as being found

in India only from Nepal to Bhootan, and in Khasia. The present writer found this fern at another and considerably lower station in the Dehra Dun, in 1880, and he has several times since seen it in the same nearly inaccessible place, which is one of the most picturesque spots in the district. Among his notes, since made at Kew, he has, however, found that this fern was collected long ago in the Adh Valley by Edgeworth, and he fancies that locality is in North-Western India. Specimens were then also seen in Kew, collected by Wallich in Nepal, in 1829. The fern is said by Clarke to be very common in the Himalaya east of Nepal, and in Khasia; and to be found also in Burma, China, the Philippines and Japan. From a later paper by Mr. Clarke, it appears that he collected *Gymnogramme elliptica* at Kohima, Assam, and also in North Manipur, in 1885.

The present writer has recently gone through the whole of the Messrs. Mackinnons' collection, and re-named the specimens according to his lights, and sets have been distributed to the Saharanpur Herbarium and among friends. During that examination he found, besides a large *Athyrium* which he had before seen, a very beautiful *Polystichum*, and a large *Nephrodium*, all which three species are apparently undescribed. The *Polystichum* has been got in Chumba also by Mr. McDonell. The *Nephrodium* is represented by only four fronds, without rhizomes and infertile; and if the rhizome were wide-creeping, which is not known, the fern would nearly correspond with *Nephrodium elatum* (Baker), a Mauritius and Natal fern, of which Beddome says there is one specimen in Kew, collected in the Himalaya by Dr. Jerdon; but both Beddome and Baker say that *N. elatum* is, like the *Bhil* (as described by the Baboo) "much more hairy," whereas the Mackinnons' *Nephrodium* is remarkable for being absolutely glabrous (smooth), without a trace of either hairs or down on either veins or edges, and it is, therefore, believed to be distinct. Perhaps, however, on seeing these Himalayan specimens, which they may hope to do some day, if they are good, Mr. Baker and Colonel Beddome may prefer to revise their descriptions, and say that *N. elatum* is either rough, hairy, strigose and downy, or else perfectly smooth. Original descriptions are, I suspect, often altered to suit subsequently observed facts, till the original author would hardly recognize them. Such alterations should always be noted. The Messrs. Mackinnon have been very successful in cultivating ferns, including the rarer ones brought from high altitudes.

The last labourer in the Fern-field, though by no means the least, with whom we have become acquainted (in this instance, alas! only by correspondence), is MR. GUSTAV MANN, who retired from the service of the Government of India, and went home to Germany early in the present year. Mr. Mann

wrote to me early in 1888, and, referring to an article I had contributed to *The Indian Forester* for July 1885, proposed to exchange Assam ferns for ferns of North-Western India. He was Conservator of Forests in Assam, and, as he travelled through the forests for half the year, he had good opportunities of collecting. Mr. Clarke had been with him, and his interest in ferns had thus been renewed. I believe Mr. Mann is the G. Mann whose name is mentioned so often in the "Synopsis Filicum" as a collector of ferns in various parts of Africa, before he came to India, and after whom no less than nine species so collected were named by Hooker, Baker, Mettenius and Eaton. I am indebted to him for nearly 200 ferns collected by himself in Assam, some of them very rare; and in a batch received in 1889, I found one which I described as a new species, and named *Nephrodium (Lastrea) Mannii*. It is "much more hairy" than the *Bhil* aforesaid. The description of this fern was published in "The Journal of Botany" for May 1890. Subsequently, in November 1890, I described, in the same periodical, three more new *Lastreas* received from Mr. Mann, which were collected by him in Assam, namely, *Nephrodium (Lastrea) assamense*, *N. (Lastrea) subtriangulare*, and *N. (Lastrea) coriaceum*; and in the last parcel received from Mr. Mann, in March 1891, just before he left India, is a fifth new *Lastrea*, which I have not yet had time to describe, and a specimen of a remarkably pretty *Polystichum*, which had been seen by both Baker and Clarke, and likened by them to three or four old species. I think this fern so distinct that, unless Mr. Mann has already himself done so, I will describe and name it. The fact of six new species coming from Assam in the space of about a year and a half, shows that there is much work still to be done there. With the cares of all the Government Forests in Assam on his shoulders, Mr. Mann, of course, could not exhaust the ferns; and, while keeping an eye on them when he could, he was also observing and collecting bamboos for Mr. Gamble, which was a much more important matter.

The paper in *The Indian Forester* for July 1855, by the present writer, which led to an acquaintance with Mr. Mann, was written with the view of inducing other forest officers to follow the example of Mr. Gamble and Mr. McDonell in collecting ferns, as well as flowering plants. As that appeal has as yet met with no success, so far as is known, except in the instance just mentioned, it is here repeated, in the shape of extracts from the original paper, even at the risk of repetition:—

"In September or October 1882, I presented some specimens of Indian Ferns to the herbarium of the Forest School at Dehra, and I believe that Major Bailey invited the officers of

his Circle to send me any rare ferns they might meet with. None, however, have yet reached me, except from Mr. J. C. McDonell, with whom I had previously been in communication on the subject."

"The theory I refer to seems to be that recently observed species, however apparently distinct, are likely to be mere varieties of previously known and described species, and it is very hard work to convince botanists who go merely by herbarium specimens, of the specific difference of a new fern. This theory is the result of reaction from the views of certain botanists, English and German, who have endeavoured to found numerous genera and species upon comparatively trifling differences, occasionally observed, but which are not always found, and which most other observers cannot recognize as being of importance. Thus Van den Bosch (!) made 24 genera and 450 species out of the two generally accepted genera *Hymenophyllum* and *Trichomanes*, which, according to Baker, contain only 80 and 92 species respectively. But to set down, as Baker does, *Nephrodium* (*Lastrea*) *elongatum*, of Hooker and Greville, a quadripinnatifid fern, and also *Nephrodium cochleatum* (Don), which is so distinct a fern as to have been made a separate genus by two different authors, as mere varieties of *Nephrodium* (*Lastrea*) *Filix-mas* (Rich.), which is only bipinnatifid, and has a totally different appearance and habit, is really too much for any one who has been in the habit of observing these three ferns growing in their natural habitats. Even Clarke, who has made a loving study of the ferns of Northern India *in situ*, is to me quite incomprehensible (or is it that I am incomprehensible?) on this subject of *Nephrodium Filix-mas* and its so-called varieties. He says that this fern, including its numerous Indian forms, is abundant in the Himalaya. But I have never seen the British *N. Filix-mas* in India, unless some specimens from Kashmir; and, if the typical plant is non-existent or very rare and very local, whence come the "numerous Indian forms." A "variety" must surely be a variation originating from a type, and not merely a separate species which one or more botanists, from a dislike to multiply species, choose to call a variety of a well-known species."

The theory referred to in the above extract seems almost to be that *Nephrodium* (*Lastrea*) *Filix-mas* and *Asplenium* (*Athyrium*) *Filix-fœmina* were the only ferns of their respective genera in the Garden of Eden, that they were named so by Adam and Eve, in compliment to each other, and that consequently all other *Lastreas* and *Athyriums* at all like these must be varieties of them.

"The object of this long digression is to show that there is still great room for study of the ferns of India; and I wish

to point out that Forest officers, above all other persons, are well able to collect the data for this study. To what does Colonel Beddome chiefly owe his eminence as a Pteridologist, but to the opportunities he had as Conservator of Forests in Madras? Forest officers have all, more or less, studied botany, and all are trained observers, and all are presumably fond of nature, or why have they joined the *jāngalāt* department? Forests, as a rule, are found in hilly-tracts, and so are most species of ferns. * * * I think it must be quite as interesting and important to know what species of ferns are associated with certain species of trees, and are generally found in certain kinds of forest, as it is to know how flowering plants are so associated, and I remember Dr. Brandis telling me that he studied and valued ferns in this connection. *Brainea insignis* (Hook.), he instanced as characterizing a certain kind of forest, I forget what. I see that Mr. Gamble, in his *Manual of Indian Timbers*, says that it is found in the pine forests of the Martaban Hills, at 4,000 to 6,000 feet elevation. Mr. Gamble, I believe, never passes over a fern when collecting.

"Not being a Forest officer, and consequently not having the opportunities and facilities for observing the rarer and more inaccessible ferns in their native haunts that I could desire, and no longer being so locomotive as I was when I began to collect ferns some 28 years ago, I am now dependent, to some extent, on the help of others. With the view, therefore, of adding to my collection and knowledge of the ferns of North-Western India, I offer to examine, arrange, and name all Indian ferns that may be sent to me, and in return I hope to be given such duplicates as my correspondents may be able to spare. When desired, specimens will be faithfully returned as soon as I have examined them, or if the labels bear numbers, I can send a list of the names. Also I should be glad to receive contributions of duplicates from Forest officers who are able to name their ferns for themselves. And I should be glad to exchange North-Western specimens for ferns from other parts of India."

The paper from which the above extracts were taken was addressed specially to Forest officers, but the writer will be glad, as therein offered, to examine, arrange, and name ferns sent to him from any other quarter, provided they are complete and fertile specimens, and on condition that, with each lot, a set of duplicates is sent, as a return for the time and trouble he will have to devote to the examination.

C. W. HOPE.

ART. IX.—THE PROPOSED CADASTRAL SURVEY OF BEHAR.

I.

IN view of the interest which the question of the Cadastral Survey and Record of Rights has evoked in Bengal, and the agitation and alarm it is causing in Behar, it may not be amiss to bring together all that is known of the subject, and to examine the question in the light of what is known.

2. Section 101 of the Bengal Tenancy Act, on which, we suppose, action is intended to be taken, provides :

“ *Clause (1).*—The Local Government may in any case, with the previous sanction of the Governor-General in Council, and may, if it thinks fit, without such sanction in any of the cases next hereinafter mentioned, make an order directing that a survey be made, and record of rights be prepared, in respect of the lands in a local area by a Revenue officer.

“ *Clause 2.*—The cases in which an order may be made under this section, without the previous sanction of the Governor-General in Council, are the following (namely) :—

“ (a)—Where the landlord, or *a large portion of the landlords or of the tenants*, applies for such an order, and deposits or gives security for such amount, for the payment of expenses, as the Local Government directs ;

“ (b)—Where the preparation of such a record is calculated to settle or avert a serious dispute existing, or likely to arise, between the tenants and their landlords generally.

“ (c)—Where the local area is comprised in an estate or tenure which belongs to, or is managed by, the Government or the Court of Wards ; and

“ (d)—Where a settlement of revenue is being made in respect of the local area.”

3. There are two clauses of this section under which an order for a survey and record of rights can be made :—

1st.—Where the previous sanction of the Governor-General in Council is needed.

2nd.—Where it is not needed.

Cases under the second clause are :—

(a)—When the Local Government is moved thereto by *a landlord or a large portion of the landlords or of the tenants*, and deposits of costs are made ;

(b)—Without being thus moved, where the Local Government is of opinion that the measure is calculated to avert a serious agrarian dispute ;

(c)—With respect to estates which belong to Government or are managed by the Court of Wards ; and

(d)—Where a settlement of revenue has to be made.

Clause (1) is new, that is, it did not exist in the previous laws of landlord and tenant in Bengal. Clause (2) brings together the provisions of section 27 of Act X of 1859 and section 38 of Act VIII of 1868 (B. C.), and the law for the settlement of agrarian disputes, with this difference, that, in (a), it gives the power of moving the Local Government to a large body of landlords in a co-parcenary body, or a large proportion of tenants ; all tenure-holders and all classes of rayats coming under these terms according to the definitions.

4. Scarcely a case of real exigency can be conceived where clause 1 should operate, which is not covered by clause 2, and clause 2 (a) gives the option of moving the Local Government for a survey and record to the *landlords* and *tenants* alike. There cannot be any doubt that they are the best judges of their own affair, except, perhaps, in a case of agrarian disputes, where they may be said for the time being to be blind to their interests, and in such a case the Local Government has the power to order a survey and record of rights of its own motion, if it thinks the measure calculated to avert serious disputes.

5. But a sound policy of *laissez faire*, where interference is absolutely uncalled for, and is calculated, as we shall show as we proceed further, to be mischievous, is at a discount in India. In the present instance the rayats are thought to be not sufficiently alive to their own interests and to be ignorant of the provisions of the law ; and the Bureau of Agriculture, and, after it, the Government, as their natural guardians, proper parties to move.

6. The action of the Local Government and the Government of India, so far as their power extends under clause 1 of section 101, is found absolutely unfettered by any Legislative provisions ; but there can be no doubt that the Local Government can move the Government of India only on reasons shown, and the Government of India in Council can accord such sanction only on sufficient grounds shown.

7. What all parties interested have a right to complain of is that, up to the present moment, the Local Government has simply proceeded on *ex-parte* statements, and it has obtained the sanction of the Government of India on such *ex-parte* statements. Even granting that the Bureau of Agriculture represents the rayats, the alleged dumb millions of India, and we may perhaps have to say a few words hereafter to dispel the illusion, there was and is another party to the question, and there were recognized accredited channels of communication with that party ; but we know, as a fact, that they have not been taken into confidence in regard to this matter.

8. In the absence of all information regarding the grounds on which the Local Government asked for and obtained the sanction of the Government of India, we are left only to conjectures and surmises. We shall take all possible grounds that suggest themselves to us, and examine them, to see whether they are of sufficient weight to induce Government to launch into such a vast undertaking.

9. The possible grounds which suggest themselves to us are these :—

- 1st.—That the experimental survey and record of rights *promised* has proved a fair success.
- 2nd.—That the rayats have not yet in hand a trustworthy record of demands, and that such a trustworthy record of demands cannot be obtained without an expenditure of a crore-and-half of rupees.
- 3rd.—That there has been such a general increase of rents in the province since the passing of the Bengal Tenancy Act as to lead to a presumption of illegal enhancements having been made.
- 4th.—That agrarian disputes of a serious nature have arisen, or are likely to arise, and a general survey and record of rights is the best administrative reform to avert it.
- 5th.—That the exchequer of the Provincial Government is in such a solvent condition that it can apply its surplus revenue to this reform, and the surplus revenue, if any, cannot be better utilized.
- 6th.—That it can maintain the large establishment needed for preserving and continuing the record out of the current revenue.

We shall proceed to examine these grounds *seriatim*.

10. As to the first ground, the enactment of the whole of Chapter X., in which comes section 101, having been objected to in the debates on the Bengal Tenancy Bill, His Honour (Sir Rivers Thompson), the then Lieutenant-Governor, said : " With the sanction of the Secretary of State and the Government of India, the utmost we should attempt in the first instance would be one *single district*. and we shall be guided much by the success we meet with in *that district* before proceeding further."

Sir Steuart Bayley said : " You have just now heard from His Honour the Lieutenant-Governor that this order of the Secretary of State is still in full force " (we shall refer to the order hereafter), " and that at present he has no intention of going beyond it. Certain provisions of this chapter are, of course, applicable everywhere. A landlord in Bengal Proper may apply to have these settlement operations brought into effect in

regard to his estate, or a portion of his estates. or, on a *riot taking place in any single landlord's estates, the Local Government may apply to the Government of India for permission to put it in force in that estate.* But with regard to a general record of rights, not only is it distinctly understood that the Lieutenant-Governor will apply it only in *some one selected district* in Behar and abide by the results of that experiment, *but it is also certain that, as the Secretary of State has not sanctioned anything beyond that, nothing beyond it will be carried out until the Secretary of State does sanction it."*

His Excellency the President (Lord Dufferin) observed that no one, he imagined, could, in theory, be opposed to the introduction of this chapter. At the same time His Excellency could assure the Hon'ble Members that, not only in deference to the suggestions made to them by the Secretary of State, but also from their own appreciation of the exigencies of the case, the Government of India would be indisposed to consent to the application of the sections referred to otherwise than in the sense and spirit recommended by Lord Kimberley. By applying the machinery of the chapter *to a small and limited area in a tentative way, they would be able to observe how the clauses were likely to work, and there was every hope that, by that cautious method of procedure, they would be able to obviate the objections to which the Hon'ble Members had referred.*

11. Now the only experiment tried in Behar, so far as we are aware of, has been not of a *whole district*, but of an area of 413 square miles out of 3,004 square miles of that district.

12. Was it a success that would justify the general survey and record of rights of all the districts of this province at an enormous expense?

13. The pronouncement, so far as the main object;—the rayat having in hand a trustworthy record of his rights with any amount of certainty, unaffected by changes (transfers, successive partitions) can only be made after a certain number of years have passed, and time must also elapse to show whether any record obtained on a sufficiently comprehensive area would lead to the cessation of litigation and ill-feeling between what are alleged to be two antagonistic interests, and bring on that millennium which is now, on academic grounds alone, sanguinely anticipated as the result of an undertaking of this kind.

14. Now these prospective results are the only results that are to be looked for from such a great undertaking, and the experiment, before it can be pronounced a success, must bide time. Even Mr. Finucane, in a meagre Report (First Annual Report of the Director of the Agricultural Department 1886) which, after some enquiry on the subject, we hear is

the only report on the subject available to the public, sees this and says :—

Para. 20.—“ It would be *premature*, with the information now available, to pronounce a final opinion on the benefits which may be expected from these operations to the landlords and rayats concerned ; but if the success of the work may be judged by the absence of friction and of those difficulties which were anticipated in connection with the proceedings, the experiment may be said to have been so far eminently successful.” The absence of friction and the absence of difficulties, even if these conditions were found existent in an experiment on the large scale to which the Bengal Government was pledged, would not in any way afford adequate means of judging of the benefits that would be conferred by a general survey and record of rights. There is, therefore, no experiment yet which would justify an undertaking of the sort (pledge or no pledge), and all that we have yet to go by is the old academic arguments and hasty generalizations on the point.

15. Apart from what Mr. Finucane himself says as to its being premature, with the information now available, to pronounce a final opinion on the benefits which may be expected from these operations (Experimental Survey of a Tract of 413 square miles in the District of Muzafarpur) to the “landlords and rayats concerned,” and the undertaking being expedient only in case of the experiment proving a pronounced success, we have some facts which do not much tend to show that the results arrived at elsewhere by similar operations of the kind give any great hope of success of the kind anticipated.

Turning to the Report of Professional Survey of Season 1889-90, District-Julpaiguri, p.—XIII., Statistical Returns, Administration Report for Bengal, 1889-90, we find in the column of Remarks by Executive Officers—Head ‘Maps of Previous Surveys’ used as a guide to boundaries, the following remarks : “The comparison of the boundaries of the ‘time-expired jotes’ was not quite so satisfactory owing to the encroachments on ‘khas mehals’ in a large number of jotes ; the extreme difficulty in identifying them owing to the change of units, and the faulty character of the information as to towji numbers, &c., obtained in the field from the jotedars. With the ‘arable waste land jotes,’ however, the greatest trouble has been experienced—very few of the boundaries agree in shape, and from the change in the name of the jotedars, encroachments, want of distinguishing numbers, and various other causes, the comparison with the former records is very tedious and the progress slow.”

This bodes ill for the “certainty” that we aim at the future.

16. As for the cessation of litigation, the number of suits of all kinds, in Orissa, Chota-Nagpur and the district of Chittagong, where periodical surveys have been made, does not give evidence of that happy and gradual diminution which is sought for from the general survey and record of rights. They are on the increase, and prove, perhaps, that the increase of litigation is due to other causes than the absence of a general survey and record of rights.

17. Then, as to Mr. Finucane's statement regarding absence of friction and difficulties overcome, which, we again say, affords no adequate means of estimating the benefits of the measure, if any, the only points touched on in the meagre Report of the Experimental Survey without sufficient details are these:—

- (1). Cheapness of cost ; (2) Small number of suits ; (3) Absence of active opposition.

18. Referring to cost, Mr. Finucane says (para. 19 of the Report): ' The total cost of the operation of both survey and settlement to the end of July was Rs. 1,44,032, or nearly 9 annas per acre on the area which had been cadastrally surveyed ;' and further on he says that the cost need not exceed $8\frac{1}{2}$ annas per area, or about a tenth part of one year's rental.

Turning, however, to the later figures, not in any experimental tract, but elsewhere we find that, in 1889-90, 12,08,680 acres were surveyed at a total cost of Rs. 8,32,836-12-0 (*vide* p. 23, Administration Report, Bengal, 1889 90,) *i. e.*, at an expense of 11 annas per acre, and, instead of the figure of expense per acre coming down, as Mr. Finucane expects, it is likely to rise, and perhaps, too, this expense of 11 annas per acre does not include the expenditure for the records of rights ; but the point is not sufficiently clear.

19. The average expenditure per acre, calculated as above, is on all kinds of lands,—arable, fallow and waste—lands from which rents are received, and lands from which no rents are received. Therefore the average, if calculated on arable lands from which alone rents were received, would be much more. Calculating even at 9 annas per acre, the total outlay necessary for the survey of 44,192 square miles of Behar would come up to the enormous amount of $1\frac{1}{2}$ million, while the total rental of of this province is a little above $4\frac{1}{2}$ millions. Thus the legitimate cost (whoever pays it), even at the lowest figure of 9 annas per acre, would be a third of the rental of this province for one year—not a tenth part of one year's rental, as the Director of Agricultural Department in his Report calculates.

20. But whether the actual expenditure to Government be at the rate of 9 annas, or 11 annas, per acre or more, this item would, we think, bear a small proportion to the expenditure to be actually incurred by the parties concerned. Mr. Finucane

would, perhaps, say that under his model rules, no Amin finds a place in his establishment; but the rose, without the name, smells as sweet. Would he be able to do without the employment of a subordinate agency on small pay unless he were to add enormously to the expense of the operations? Now this individual, call him an Amin or by any other name, would expect to be sumptuously fed, and to retire with a good neat sum from the victimized villages at the end of his temporary service. The rayats will bid, the zemindary amlahs will bid, for the good graces of this mighty official, and for incorrect records, unless the millennium has already come, or is near at hand.

21. Perhaps Mr. Finucane will tell us to trust to him and to his able assistants in the matter. But will not the actual cost be made up of such legitimate expense as these—

(1).—Expense of journey to and from the survey and record offices, both for landlords and tenants, and of witnesses, touters, *et hoc genus omne*, and loss of time.

(2).—Expense of placing a case before the Revenue officers and proving it (dispute or no dispute; very heavy indeed where dispute arises).

22. Then, as to absence of friction, as evidenced by the small number of suits instituted in connection with the proceedings in the experimental tract. The glimpse given to the public of the experimental survey holds out no very hopeful prospect for the general survey and record of rights. In surveying 413 square miles, there appear to have been 326 boundary disputes. Though we are told that some of these disputes have been amicably settled, we are also told that appeals have been preferred in several cases. The costs to the parties in this litigation it is not easy to calculate. But boundary disputes form only one item of litigation. Mr. Finucane does not tell us how many cases arose in his experimental tract between landlords and tenants as to the nature of the tenants' holdings and the rates of rent, and how many cases there were between rayats as to the title and possession of lands. And even if he had told us this, some amount of assurance would also be necessary as to the competency of the officials engaged under him to try the various and complicated questions that had arisen.

One fact, however, is clear from the meagre Report. Out of 26,123 tenants, whose holdings were recorded, in the cases of 7,520 tenants, or about one-third, applications had been made, on behalf either of landlords or tenants, to determine the fair rates, and though the fair rate settled under the rules was the rent actually paid, a fact which Mr. Finucane deprecates, the absence of friction, on which Mr. Finucane congratulates,

lates himself, is not very evident ; for, whatever might have been the actual result, the cost to the parties could not have been at all small. This is very much the state of things which would necessarily arise and which makes the people so anxious ; the experiment, imperfect as it is, shows that there will be dispute in one out of three cases of rayats' holdings, measured and recorded. Perhaps if real disputes actually existed and they were settled in any way—bad, good or indifferent—there would not be much to complain of ; but what is apprehended is that, with the advent of the survey party and party for record of rights, disputes would arise where none previously existed, and the idiosyncracies of officials would be seized on by designing men, as inducement to the setting-up of claims without any foundation in fact.

23. The second possible ground on which the sanction of the Government of India for a general survey and record of rights could be applied for by the Local Government, is, as we supposed, that the rayats have not yet in hand a trustworthy record of demands, and that such trustworthy record of demands cannot be obtained without an expenditure of a crore-and-half of rupees.

Now, nobody has ever chosen to examine the correctness or otherwise of the statement that has obtained currency since 1878, that the Behar rayats have not in hand a trustworthy record of demands, and that in this matter they are differently and less advantageously circumstanced than the great body of rayats of Bengal Proper. Let us weigh the facts. A great portion of the whole area of Behar is comprised in a few Rajes. Two of these big Rajes, comprising a great portion of the districts of Durbhangah, Muzafarpur, and Saran, were, within the last twenty years, under the management of the Court of Wards, and we believe not a pice has been added to the rent-roll since the proprietors themselves assumed direct charge of their estates. The whole Durbhangah Raj and a good portion of the Hutwa Raj was surveyed by the Court of Wards. A good portion of the Tikari Raj in the district of Gya, and the Narhan Raj estates in the district of Muzafarpur, are still under the Court of Wards. The Deo Raj in the district of Gya is being managed under the supervision of the Collector, under a special Act, and the Banelly Raj, comprising a good portion of the districts of Purneah and Bhagulpur, has been for some years under the management of a special officer lent to the Raj by Government.

Other zemindaries, not so large as the above, but the total area of which must bear a perceptible ratio to the whole area of the province, have been from time to time under the Collector's management. A small portion of the area of the whole district

is also held by Government as khas mehals. Now, can it be said that the statement that the rayats have not a trustworthy record of demands in hand applies to these estates? The rayats, if they were to want it, could get at any time extract copies of rent-roll of their respective holdings from the Collectors' jamabandis, or Government can at any time, by an executive order, cause such copies to be furnished to them.

The Doomraon Raj, comprising a good part of Shahabad, has been extolled by successive Lieutenant-Governors for its good management, and the Betiah Raj, comprising a good part of the District of Champaran, is under the management of a European gentleman enjoying the confidence of Government. Can it be said that the rayats of these estates have not in hand a trustworthy record of demands? If they have not, they have simply to apply to get copies of extracts of jamabandies from these landlords. Then we have records the probative force of which is as good as the probative force of the proposed records will be after a certain lapse of time, in cases of estates, as follow:—

- (1).—Where a measurement and record of rights have been made under section 27 of Act X of 1859 and section 38 of Act VIII of 1868 (B. C. .
- (2).—Where a cadastral survey has been made within the last few years in tracts bordering on the irrigation canals.
- (3).—Where a thak and survey were made in 1842-43 and settlements thereon. Many estates in this province will be found to come under this category.
- (4).—Where a partition of estates has taken place, and jamabandies—have—been filed on the basis of which the raibandi has been made.
- (5).—Where the jamabandi papers were filed and have been preserved under the orders of the Board of Revenue, until the time when such filing was put a stop to by further orders.
- (6).—Where a *Teish-khana*, or 23 column Return, under the executive order of the Board of Revenue, has been filed, as in almost all the districts of Behar, showing the nature of holdings and the rates of rent paid.
- (7).—In the road-cess returns and valuation statements.
- (8).—In the decrees of courts. It will be, perhaps, said that some of these are *ex-parte* proceedings on the part of the landlord; but they are good evidence in the hands of the rayats to contradict any extract of rent-roll filed or tendered to the rayats by the zemindars in excess thereof.

24. The big Behar landholders introduced the system of counterfoil printed receipts some years before the amendment of the Law of landlord and tenant, and it was, we believe, at the suggestion of their organs that this system of receipts, undoubtedly a real improvement, was introduced into the Bengal Tenancy Act. Every rayat ought now to have in hand his counterfoil receipt and annual statement of account ; and section 56 of the Bengal Tenancy Act, and the form of receipt as given in the Act, prescribe the insertion of the particulars of the holding, particulars of the demands, and all details of payment. The annual account, while it prescribes the insertion of the particulars of holdings, provides for the insertion of the demand of the year, balance of former years and details of payment on account of current demand and arrear demand. This receipt the landlord is enjoined, under a penalty, to give the rayat on the occasion of each payment, and the annual statement at the end of every year. They are valuable evidence of the nature of holdings and rates of rent in rayats' hands.

25. It is said that the receipts and annual statements are not being given in all cases, and there may be false entries made in those given. The remedy is in the hands of those who administer the law ; and, instead of these points being stated as true off-hand, a little enquiry to determine the facts may not be out of place. We may at once find, by reference to the records of civil and criminal courts, in how many cases receipts have been withheld, or in how many cases false entries have been made. The whole number of suits in Bengal and Behar under the head Rent law and under sub-head Damages for extortion or for withholding receipts, or on account of illegal restraint, or other cause, was 114 in 1889-90, while in 1886-87 it was 337—even in the latter case not a very large number, in all conscience.

26. The Behar Rent Commission, in place of launching the whole country on an expensive and harassing undertaking like this, proposed a speedier and less expensive remedy in order to meet the allegation that the Behar rayats have not in hand a trustworthy record of demands.

They suggested that the landlords should be bound to file in a public office accounts showing the amount of each rayat's rents and the area of his holding. These accounts, they said, might be verified and tested by a public official in the presence of the rayats concerned, and a basis might thus be established on which subsequent enhancements or reductions of rent might be made, according as prices might rise or fall. If Government action is needed in the matter at all, the adoption of this suggestion, while serving all the purposes of

a cadastral survey and record of rights, would be the least expensive, and, as re-valuations of estates for the purpose of road-cess are made from time to time, the opportunity might be taken of any such occasion to do what is thought needful. No additional expense would be needed, and all chance of useless friction would be avoided. If it were thought necessary, the returns filed on such occasions might be made, by an executive order, to show the boundaries of each holding, and, in case of dispute, the officer deputed to make the re-valuation might be empowered to settle disputes regarding boundaries, if any.

27. The third ground on which we supposed the Local Government could move the Government of India for sanction for a general survey and record of rights, would be the fact that there has been such a general increase of rents in this province since the passing of the Bengal Tenancy Act as to lead to the presumption that illegal enhancements have been made. We use the words "since the passing of the Bengal Tenancy Act" studiedly; for all that the Revenue officers of the cadastral survey and record of rights can do, is to fix the "fair rents," and both under the law and the rules framed by the Board of Revenue under the law and approved by Government, the existing rents are to be taken as "fair rents," unless prices have increased or fallen. With reference to the experimental tract, though, as we have seen, in view of the hopes raised in the rayats, the fixing of "fair rents" was applied for in the case of 7,520 out of 26,123 holdings, Mr. Finucane had to record as "fair" the existing rents. He says (para. 18 of the Report): "In all cases in which fair rents had been settled, the existing rents were recorded as fair. The law presumes that the existing rents are fair till the contrary is proved, and does not permit of their reduction except on the ground of a fall in the prices of staple food-crops since the rents were last fixed, or on the ground that the area of the holding is less than that for which the rayat has been paying rent. Neither of these grounds (which alone justify reduction in present rents in order to arrive at fair rents, as defined in the Tenancy Act) having been found to exist, it necessarily results that the existing rents cannot be reduced in order to arrive at the fair rent. On the other hand, landlords have not shown that prices have risen since the rents were last fixed, nor have they adduced evidence that the rayats are holding lands in excess of those for which they are paying rent, so that the result, so far as the proceedings have gone, has been, that the existing rents have in every case been recorded as the fair rent." This is an important point, and though elsewhere he says (para. 22): "It would be out of place to discuss here at any length the question whether the rents now being recorded as fair and equitable are in reality such. The Tenancy

Act declares that existing rents must be presumed to be fair, and leaves, as has been already stated, no power to the settlement officers to reduce them, except where it is shown that the price of the produce has fallen since they were last fixed. Prices have not fallen in Behar in the short periods since rents were last fixed, and in this technical sense it may therefore be said that the rents which are being recorded are fair, but it is evident that it would be arguing in a circle thus to define the existing rent as the fair rent, and then to say it is fair because it exists. To record rents as fair in this manner can in no way constitute them fair and equitable according to the common interpretation of those terms. But though it would be premature, at the present stage of the operation, to discuss at length the question whether these existing rents, which are necessarily being recorded as fair and equitable, are in reality such in any true or solid sense of these words; yet it may be here remarked that if, as the Government of India was satisfied in 1882, 'the majority of rayats in Behar are rack-rented,' it follows that the character of these rents will not be altered by merely calling them fair."

The discussion appears to be a purely academic one. This, however, is enough to excite the present alarm in the zemindari body. The views of the head of the Department being thus pronounced, they apprehend that, rightly or wrongly, consciously or unconsciously, these views will be given effect to. But the law passed binds Mr. Finucane and binds the Government, and no sane Government will allow Mr. Finucane to give effect to his own views, in opposition to the law, and to confiscate the property of the zemindars. Mr. Finucane's experiment, however, showing that in all cases existing rents are fair rents as defined in the law, where is the rack-renting, and what necessity is there, from the known results of this experiment, to undertake a general survey and record of rights at an enormous expense?

28. The following figures will show that there has been no general increase of rents in this province, so as to lead to the presumption that illegal enhancements have been resorted to:—

		Total Road-cess in Behar in Rupees.	Total Public Works- cess in Behar in Rupees.
1885-86	...	14,87,233	14,72,912
1887-88	..	14,63,259	14,63,259
1888-89	...	14,33,353	14,23,353
1889-90	...	14,80,843	14,80,844

It will, perhaps, be said that the Road-cess and Public Works-cess are levied on a valuation roll made in 1882-83, but the affirmative of the proposition that rents have generally been increased in this province, so as to lead to the presumption that

illegal enhancements have been resorted to, has to be proved by those who would choose to rely on this as one of their grounds. From what we know—considering the attitude of courts, and the state of some of the rulings under which Abwabs, consolidated with the *Asal* jama years ago, have been eliminated from the present rents and contracts, not with rayats, but with ticcadars, modified, under the provisions of the Bengal Tenancy Act, we have reason to believe that the next re-valuation will reveal the fact that the general rent-roll of the province has suffered a considerable diminution since 1882-83.

29. In face of the state of the law adopted after 1882, the question whether the "majority of rayats in Behar are rack-rented" comes, as we said, to have merely an academic character. The allegation had been made, and, when it was challenged, the only attempt made, previous to the passing of the Bengal Tenancy Act, to prove it, was to depute four officers to enquire into and ascertain the equitable rent rates in four selected areas. Two of them were appointed for Behar: Mr. Tobin for a selected tract in one of the South Gangetic districts, and Mr. Finucane for a selected tract in one of the North Gangetic districts. Mr. Tobin found that, instead of the rayats in the district of Shahabad being rack-rented, they were prosperous middlemen, receiving from the body of under-rayats five times as much as they paid to their landlords.

On an examination of Mr. Finucane's Report, a writer in the *Calcutta Review*, in an article entitled "Is Behar Rack-rented? An Enquiry into the Condition of the Behar Rayats," after closely examining Mr. Finucane's facts and figures, concluded thus: "To sum up, we have shown that a variety of causes, foremost amongst them competition and the prevalence of higher rents in the vicinity, have conduced to bring up the rent rates in the tract examined by Mr. Finucane; that these rent rates, compared with the rent rates pronounced to be low by a competent authority (Board of Revenue with reference to Mr. Tobin's report), are not at all high; that they are not high with regard to the productiveness of the tract, when compared to the rent rate of the tract examined by Babu Parbati Charan Rai. That, as a matter of fact, the incidence of rent in the district of Muzafarpur, as found from the Road-cess returns, is not at all high. That the valuation per square mile shows that the rent in Muzafarpur is lower than the rents in several districts of Bengal. That Mr. Finucane was not at all justified in throwing out of his calculations, the prices of other valuable products and framing his tables on the prices of cereals alone; that even on that calculation it has not at all been made out that the rents are high and are the result of illegal enhancement. That if private contracts were to be done away with and only

the method of Mr. Finucane adopted, in determining what is equitable rate of rents, the rent rate, in tract examined by him, would have to be raised all round, as the following table clearly shows, and not to be reduced as he recommends :—

Name of tract examined.	Average rate per bigha in 1247 F., 1840 A.D.	Add 184 per cent. for increase in prices.	Total being new all-round rate.	Existing all-round rate per bigha.	Percentage of increase on existing rates that will have to be made.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Tubka Khas ...	1 3 4	2 3 4	3 5 8	2 9 9	38
Tubka Magrebi ...	1 1 3	1 15 3	3 0 6	1 11 9	60
Tubka ...	1 9 0	2 13 0	4 6 0	3 5 11	30
Raqbabar ...	1 14 0	3 6 0	5 2 0	2 4 8	128
Gangowh ...	1 14 8	3 6 0	5 2 8	3 3 6	60

30. Under the fourth ground supposed, though, along with other provinces, Behar has been, of late years, the scene of some serious rioting with reference to mosques and temples, we are not aware of any agrarian disputes. We have been at some pains to examine the Administration Reports for a number of years, and the number of cases under the rent-law does not give much evidence of any such disputes. Excepting the suits for rent, disputes under other heads are merely nominal ; and suits for rent and speedy disposals thereof, are the only points which the Bengal Tenancy Act did not properly provide for.

31. Is, then, the exchequer of the Provincial Government in such a solvent condition, that it can apply its surplus revenue to an undertaking involving such a heavy expenditure ? And cannot such surplus revenue, if it exists, be better utilized for the good of the rayats ?

We have shown that the total outlay required, even at the lowest figure of 9 annas per acre, would be $1\frac{1}{2}$ million, and not 88 lakhs, as is said to be the estimate of the Government of Bengal. But, taking the result of similar operations elsewhere, we hold that the expenditure is likely to be 12 annas per acre, and not 9 annas, and the total outlay for 44,192 square miles of Behar will be 2 crores of rupees.

32. It will, perhaps, be replied, that this expenditure is to be spread over a number of years ; but is the Government

of Bengal, under its Provincial contracts in any one year, so solvent, that it can spare a good round amount for a work of such questionable utility? There are hundreds of other reforms which it has to postpone from year to year for want of funds. It has not yet been able to give us the proper contingent of Munsiffs to decide rent-suits. It has given us a sanitary primer; but if, as, we believe, it cannot do for want of funds, the Bengal Government, as proprietor of lands, were to introduce, or assist the rayats in introducing, in all its khas mehal estates, those primary sanitary reforms which are absolutely needed for rural tracts, Bengal and Behar alike, how long could the neighbouring proprietors resist the influence of such good examples. Nowhere are "fads" so zealously protected and patronized as in India. One of these "fads" is the improvement of our agriculture. Year by year we have spent a good deal of money in maintaining a department which has no results to show, and which can, according to an authority whose opinions on the point ought to carry weight, have nothing to show. Truth is at last, we are happy to say, being tardily recognized, and it was only the other day that Mr. Cotton, in England, said that it is not to the improvement of agriculture, but to the development of our manufactures, that we must look for the salvation of our poverty-stricken people. That poverty will soon reach its climactic point amongst our landless classes, the classes of Noniahs, Jolahas, &c., who were once prosperous manufacturers, and who have now to subsist by precarious day-labour. It is people of this class, and not yet the land-holding rayats, who go half starved from year's end to year's end. It is they who have to stint themselves in the matter of that necessary article of consumption the daily ration of salt.* But if we allow ourselves to go on with our "fads," and do not boldly recognize the fact that, to save people, they must have their manufactures restored, others, now better off than they, will be soon reduced to their position, by over-population, by our inexorable law of partition, and will soon come to share their penurious existence. Mr. Finucane's experimental survey and record of rights established the fact—a fact which was well known to all those acquainted with the economic condition of Behar—that the average total area held by a rayat, whether under the same or different landlords, was, as far as could be ascertained, about three acres. On the produce of these small

* When this statement was first made by a witness before the Excise Commission in a written statement, there appears to have been a stir, and one of the Commissioners was deputed all the way from Rajshahi to Bankipur to cross-examine him on the point. Now the published official Report shows that the average salt consumption in Behar is 9-seers per head, whereas it is 12-seers per head in Bengal.

holdings have to live five or six individuals (*vide* para. 18 and subsequent paras.), and as, every ten years, these small holdings will be divided into smaller and smaller portions, do what we may, in recognizing a peasant proprietorship, or in improving our present system of agriculture, the inevitable must certainly overtake us at last. Already the interest on capital outlay which we pay from year to year out of the general revenue of this province for the Sone irrigation canals and similar works, is 21 lakhs; the amount is increasing from year to year, as the canal revenue is diminishing. This sum represents 4 lakhs more than the land revenue of Shahabad, and is almost half the whole rental of that district. Is there any corresponding benefit? In seasons of scarcity, when water is needed, the canal gives us no water, and the increased productiveness of the soil is not such that it has in any way altered for the better the condition of the great mass of the people of the district, or enriched the general resources of Bengal and Behar. The zemindars of Behar have been abused in all quarters and pointed to as the cause of the poverty of the rayats in this province, and a Bengal Tenancy Act has been passed, confiscating half their rights, and yet what is the result? Every year of scanty rains, or unseasonable rains, causes distress amongst the great mass of landless people and alarm in our official body, and a cessation of rains, as was the case in 1874, is sure to bring on another famine. Then will our frantic and spasmodic effort to save people cost us again a crore-and-half, as the district of Durbhangah alone cost us in that year, chiefly to fatten contractors who would supply us with rotten rice, and underlings of sorts, and only a small part will be doled out in charitable centres to the famine-stricken people. One might almost be tempted to cry in agony of heart: "Let the poor wretches die, if you have only to save them for the purpose of living a few years of half-starved existence with increased burdens of taxation!"

32. It is time that, before we venture to spend two crores to give effect to another of our "fads," the truth that has been at least recognized, be given effect to. Let the Bengal Government convert Mr. Finucane's Department, partially, if not wholly, into a Bureau of Manufactures and Industries, and if it cannot, consistently with other interests, establish State manufactories on a large scale, let it spend the rents it gets as landlord in assisting its own rayats to set up manufactories for their special benefit. It had to take up the subject of high education, and, though the time is not come, in our humble opinion, when it can gracefully retire without prejudice to such education, it might, in the same way, take up the subject of technical education, and retire from it when its aid is no longer wanted.

33. We do not assume, where nothing has been yet said on the matter, that it is intended to tax the landlords and tenants of Behar for the expenses of the proposed survey and record of rights. We have only a word to say in passing: Is there any difference between abwabs which zemindars impose on their rayats and those which the Government impose? The burden is always the same, we suppose, and if the Government has saved rayats from illegal abwabs by the stringent provisions of the Bengal Tenancy Act, does it behove it to impose legalized abwabs on the rayats on its own behalf? Did our Knights of La Mancha save those whom they thought to be victims of zemindari oppression, to lash them to death in their own way.

34. Then, lastly, it has to be shown that Government can maintain the large establishment needed for preserving and continuing the record out of its current revenue. In the course of conversation, a high official said the other day: "I do not see why there should be so much opposition, when what we aim at is *certainty* where there has been no *certainty*." He was told that "one of the reasons was, that this certainty cannot last long unless there is a proper arrangement for keeping up a Mutation Register under trustworthy officials."

35. The Secretary of State sanctioned the experiment on the understanding that, in the Patna Division, village accounts and accountants existed. The recent enquiry with reference to the amendment of the Patwari law proves that village accounts and accountants are as much wanting here as in Bengal Proper, and that the imperfect agency which exists up to date does not deserve to exist; and accordingly the Secretary of State vetoed the proposal for the amendment of the Patwari law and the imposition of the Patwari cess in any shape or form. Since then, we believe, the system of village accounts and accountants supported by a Patwari cess in the North-West Provinces, which had been held up as a model for imitation in Bengal, has received its death-blow, a circumstance which should make the Bengal Government very chary of trying the North-West Provinces' system,—introducing official underlings and letting them loose in our villages. Mr. Finucane recommends, for wards' estates and khas mehals, the introduction of village agency, in the person of an official for every 10 square miles, on a salary of Rs. 20 per mensem, before whom statements of changes are to be filed, and by whom, on notice, objections are to be invited; the said official, without coming to a decision, merely filing, as a contemporaneous record, both the statements of change and objection, if any. He further recommends the employment of a Deputy Collector for every 500 square miles. Probably, if a general survey and general record of rights were to be made, some such system would be

suggested also for places surveyed. The whole establishment that would be needed on the above scale for 44,192 square miles of Behar would be roughly Rs. 88,384 for the officials on 20 rupees monthly, and about 25,000 rupees monthly for the Deputy Collectors, or say a total of Rs. 1,05,000, or an annual expenditure of Rs. 12,60,000 on these items alone. Then record-rooms would have to be made, establishments of other sorts provided for, and contingencies met.

36. A further question will be—whether a petty official on Rs. 20 a month, even for the limited duty which Mr. Finucane would assign him, can be relied on? We are afraid he will be no better than the Patwari, only, with his position recognized and a greater amount of salary given him, he will prove more extortionate. There is a saying current that, as soon as the Police Jamadar of old, whose salary used to be Rs. 7 a month, came to get Rs. 30 a month under the Constabulary system, he began to demand four goats from the village visited where he used to ask for, and have only one goat before, referring to the fact that his salary has been increased fourfold.

The preservation of the records, the noting of contemporaneous changes, must, at least, be entrusted to these men, and they will, we are afraid, find opportunities therein of aggrandising themselves, and not be such innocuous beings as Mr. Finucane expects. A little story appears *à propos*: Once an *Omedwar* went on worrying a Sahib, as Omedwars alone know how to do, to give him some kind of employment. The Sahib, to get rid of the man, asked him to employ himself in counting the waves of a neighbouring river. Armed with the Sahib's order in this behalf, he sat on the river bank and called upon all passing boats to stop and not interfere with his counting of the waves, till, to get rid of the annoyance, every passing boat settled on him a fine fee, and the *dustoori* for counting the waves came to be very profitable indeed to our Omedwar.

But what about the "certainty," if there is to be no decision on disputed points?

37. We have seen that the annual expenditure on one item alone will come up to Rs. 12,60,000, and that, taking into consideration all expenses, the annual expenditure for preserving and continuing the record cannot be less than Rs. 20 lakhs. Where is the money to come from? The landlords and tenants cannot be asked to pay. On a consideration of all matters, the Secretary of State is understood to have vetoed the imposition of a cess for the maintenance of the records in any shape or form, either in substitution for, or in addition to, any existing cess for the maintenance of village accountants.—*Vide* para. 27 of Mr. Finucane's Report.

Is it proposed that this decision shall be reconsidered and revised? It will be an evil day both for landlords and tenants if additional cesses are to be imposed on them.

38. The present, again, is a season of scarcity. The *Hatia* did not bring that abundance of rain which was wanted, and the rains were otherwise unseasonable. By all accounts, only an eight annas crop is expected, and it is feared there will be some amount of distress, if not an actual famine.

39. It is an open secret that one of the members of the Board of Revenue, who knows Behar intimately, and some of the local officials, are opposed to the measure, and it is to be taken up only to give effect to the views of a few officials who think that the rayats will jump at the idea, and the rents be fixed for 15 years. In some part of the province rents have remained fixed for the last 60 years, and yet the halcyon days for rayats have not come. But, consistently with the provisions of the Act, we wonder how it is hoped that rents will remain fixed for 15 years simply through a record of rights being made.

40. The Secretary of State is said to have ruled, at the close of the year 1885-86, that the Experimental Survey should be abandoned.—*Vide* page 5, Bengal Administration Report, 1885-86.

We appeal to the Local Government to consider and to pause.

GURU PROSHAD SEN.

BANKIPUR,
22nd November 1891.

N. B.—Since this article was written, a Government Resolution, dated 9th November, on the Cadastral Survey and Record of Rights, has been published; but the arguments against the proceeding remain unaffected.

II.

THE proposed Cadastral Survey is a burning question throughout Behar, judging from the monster meeting held at Sonapore and the unanimous resolutions passed there. Anyone ignorant of the real state of public feeling would suppose the scheme to be as bad as it is represented, and to be likely to benefit neither landlord nor rayat. But those who know the inner workings of popular agitation, are aware that the majority follow the lead of some one who, either from interested motives or from a desire to earn a brief notoriety, catches at a prevailing idea and works the people up to it. It is quite the fashion now to pose as a patriot by denouncing the actions of Government, no matter how beneficial they may be to the public weal. But it is as well that we should examine both sides of the question with an impartial mind, and see for ourselves how far the obloquy heaped on the Government is justified by facts.

The publication of the recent Resolution of the Government of Bengal on the subject, and the views of the Behar landholders expressed in their speeches at the Sonapore meeting, render the task of the enquirer an easy one. It may be stated at the outset that the matter is of vast importance, involving many intricate points which may be placed in different lights by experts interested in representing them in the way best suited to serve themselves and their masters.

The question of cost is insignificant compared with the advantages likely to accrue from an exact record of rights; and we must deal with the proposal on its own merits, and examine the objections urged against it with reference to the gain or otherwise which may eventually be expected to result from it. The expense that would be incurred is not only small, but would be spread over a long period in order to afford facilities to the zemindars and rayats for paying it conveniently. Indeed, if we look more closely into the matter, we shall see that the question of cost is of no account in the consideration of the subject.

It will be admitted that the Government, whether rightly or wrongly, in framing Act X of 1859, and its successor, the Tenancy Act, have endowed the rayat class with certain rights. As long as they had no rights to enforce and no courts in which to enforce them, there was no litigation. But, with the creation of these rights, their settlement in or out of court became only a question of time. If zemindars have enjoyed immunity from litigation, while refusing the rayats their rights under the law, they must understand that they have been able to do so, only because the rayats had an imperfect comprehension of their status, and that a state of affairs which owes its existence to the imperfect knowledge of

the one party and the advantageous position of the other, is essentially short-lived and temporary. In the near future they will have to fight for those rights, and get their status once for all determined. Parties are shrewd enough not to run in to court until they have manufactured evidence for their respective claims, and then the gain for either side is very problematical. Protracted litigation, causing heavy cost to both parties, and ending in their ultimate ruin, is the too frequent result. Matters would be quite different if the parties were taken unawares. It is much easier now for the zemindars to disprove their tenants' claims than it will be some years hence. The tenants, knowing their own weakness, would be averse to resisting the zemindar's claims. But when once the tenant has made his footing good, and established his rights by village documents, he will defy his master to the last. If I am right in my contention that the zemindars must sooner or later fight out the battle with their tenants to the bitter end, and that the litigation will be the more ruinous in its character the longer it is postponed, it follows, as of course, that a measure which places the relative status of landlord and tenant beyond question, will be beneficial to both, and should be hailed by them with satisfaction. Moreover, the cost of a general record of rights will necessarily be smaller than one for a particular tract of land. I might, indeed, ask whether it is just to charge the whole cost of survey and record of rights on the landlords and rayats of Behar, when such charges have been met in other parts of the country from the Imperial Exchequer, and why we should not be treated with the same consideration as is shown to similar classes in the North-Western Provinces. I will, however, confine myself to proving that, even if it be decided to charge a portion of the expenses to the zemindars and rayats,* the advantages likely to accrue will outweigh the little inconvenience caused by the imposition of the cess.

The question is capable of being regarded from three different standpoints, *viz.* the standpoint of Government, of the zemindar, and of the rayat.

Government can have no direct interest in the matter, beyond the desire to obtain, by these means, accurate statistics of the agricultural condition of the people. It is still a disputed question whether Lord Cornwallis brought into existence a class of aristocracy known by the term zemindar, or whether he found them flourishing, and intended by his enactment to give authoritative recognition to their rights, as well as those of all interested in the land. The zemindar traces his origin from a time anterior to the Regulations, and points out traces of his

* It has since been decided to do this.—ED. C. R.

existence in the dim records of the Hindu period. He contends that the Marquis merely recognized a pre-existing position. If this was the fact, did he destroy the other interests in the soil? Did he not by express provision enjoin on the zemindars to respect the subordinate interests, and to act in good faith and moderation towards them? Did he not expect that, by settling the revenue permanently with the zemindars, and relieving them of the worry and ruin occasioned by capricious enhancements, he would ensure their showing the same consideration to the rayats and subordinate tenure-holders? These expectations failed; hence arose the necessity of the legislation of 1859. Government did not profit by that legislation. It endeavoured to define the rights of the inferior landholders; and, though one cannot help admitting that mistakes were made and innovations introduced, the English legislators acted from pure and benevolent motives. In their anxiety to protect the rights of the tenants and their zeal to serve them, opposed as they vehemently were by the zemindars, who denied them any sort of rights, they went too far, and created for them rights, and gave them a position and a name which they did not before possess.

It cannot be averred with truth that they had no status whatever before the Permanent Settlement. The intermediary class could never be the tillers of the soil. The actual cultivators have all along been those who are the rayats of the Tenancy Act, but with different rights and interests. If Lord Cornwallis had not trusted to general declarations and enunciations of the line of conduct to be pursued by the landholders in the settlement, by mutual forbearance and pacific agreement of all such matters as were undefined between them and the rayats, the long harassment of the one and the irritation of the other would have been avoided. During the period which elapsed between the Permanent Settlement and the Act of 1859, the zemindars, taking advantage of the undefined character of the tenants' rights, reduced what little remained of them to almost a nullity. The mistake of allowing things to remain in an unsettled state was not long in making itself felt, and it was therefore enacted in Regulation VII of 1822, that no permanent estate was to be settled until a full and accurate record of rights had been made. The result was that in each estate the amount of litigation was much reduced and its character became void of all complexity. The permanent estates of the Benares Division enjoy an immunity from all sources of litigation and uncertainty. The operations were there carried out most successfully, without friction, and have been the salvation of zemindar and rayats alike. If this could have been foreseen at the

time of the Permanent Settlement, and provisions, similar to those of Regulation VII of 1822 had been added, the Government would not have subsequently found itself compelled to undertake new legislation, nor would such legislation have remained a constant source of irritation to the zemindars. Then, as their rights were being defined for the first time, they would have willingly submitted to the imposition of any reasonable limitation on their action. It therefore passes one's comprehension why there should be any opposition to the honest endeavours of the Government to rectify, even at this late hour, its initial mistake, and remove a constant source of litigation and trouble. The zemindars fought hard and fought rightly when they thought that their rights were unjustly infringed, but when once, rightly or wrongly, the matter has been set at rest, it becomes the bounden duty of all to conform to the changed aspect of affairs. It is thus clear beyond cavil, that the Government has all along been anxious to secure just rights to all without any sinister motive of its own, though it must be admitted that there have been innovations and infringements of the rights of the zemindars, all due to the cardinal blunder of leaving the relation of landlord and tenant in an unstable and amorphous condition at the time of the Permanent Settlement.

I will now enquire how far the zemindars will have reason to bemoan their lot, if order is established out of chaos and stability in place of uncertainty.

The principle which guided Lord Cornwallis in fixing the revenue permanently, is one which must commend itself to all sensible men, and men of practical experience. He foresaw that an unsettled income not only disturbs the calculations on which one bases his expenditure, but ultimately leads to embarrassments and financial difficulties. What he perceived is the experience of every man. We have seen many zemindars ruined simply because they held too exaggerated an idea of their incomes, and had formed roseate pictures of what they would do in future years, and how much they would increase their revenue. The wish is father to the thought, and in the earnestness of their desire to see their income enhanced, they looked upon the increase as an accomplished fact. Hence their exaggerated budgets, their bond of debt, and ultimate ruin. It is also a matter of daily experience that the capitalized value of enhancements seldom exceeds the cost of the litigation incurred to obtain it. Over and above this, there is an enormous loss of revenue during the pendency of suits, and large sums are necessarily allowed to become barred by limitation. Each party wishing to choose its own time during the preparation for litigation, allows a

portion of its rights to become barred, rather than give to the other side a handle to be used against it at the trial. An accurate record of rights would for ever stop futile hankerings on the one side and harassments on the other. The zemindars would know their position and income, and would be able to distribute the latter judiciously over their different items of expenditure.

Then it is said that the record of rights would cause an enormous amount of litigation, and that it is viewed by zemindars and rayats alike with horror. It is not always safe to prophesy. It was prophesied on all hands that the new Tenancy Act would result in interminable litigation, and would thereby bring ruin on the very class for whose benefit it was being enacted. The Honourable Member in charge of the Bill, Sir Steuart Bayley, was not free from this apprehension. Whether he actually foresaw such a state of affairs, or whether he made the allegation to meet a possible objection, he did admit that the Bill would cause litigation. But subsequent events have shown, and I am in a position to say, that, far from increasing litigation, the general tendency of the Act has been otherwise. I am also in a position to affirm that the complex character which rent cases often assumed before the Act has altogether vanished in subsequent litigation. But I will admit, for argument sake, that the measure will instigate litigation. Nevertheless the energy of the litigation would be merely an effervescence, which would settle down into a perpetual calm. Once an accurate record was made, all would be plain sailing for both parties concerned. There would be no complex lawsuits, disputed at every step, in every allegation.

It is also more advantageous for the zemindars to have their rights determined by a Behari executive on the spot than by a Bengali Munsiff, whose fixed principle it is to disbelieve zemindars and look upon tenants as angels of truth.

Thus far I have endeavoured to show that zemindars will not be losers in the long run. It may easily be proved that they will in some respects be gainers. It is a notorious fact that the vast majority of tenants enjoy more land than they pay rent for. The Jamabandi nearly always under-rates the amount of land in cultivation. If the zemindars try to ascertain the actual area, they are baffled by a hundred-and-one obstacles. They have to trust to unscrupulous servants, who find it to their advantage to falsify the measurement in favour of the rayats. If they are fortunate enough to secure a trustworthy Ameen, the accuracy of the measurements is contested in the law courts, which often order fresh investigations by their own Ameens. Investigation by an officer not enjoying a reputation for integrity, in the presence of parties each keen in his own interest, is an

expensive thing indeed. Fresh petitions, with fresh investigations, are the inevitable consequence, and thus the battle rages, to the great injury and harassment of all concerned. Matters would wear a very different aspect should a general survey take place.

The total area of a village being known, it would be impossible for the surveyor to subtract from or add to the lands of any tenant. It would not serve the tenants' purpose to fight *inter se*, and the inevitable consequence will be the discovery of rent-paying land for which the zemindars at present receive no rent. The accuracy of the cadastral measurements already made is an admitted fact in the District of Shahabad, where they are used in all cases in which the Survey of 1845 fails to throw light, or where it is too old to be of use in settling recent disputes. Thus, when the exact area in cultivation of a tenant has been ascertained, it will require but the interpretation of a few Sections of the Tenancy Act to get an increased rent. Under Section 52 of the Act, the tenants are liable to pay increased rent for excess land proved to be in their possession. Of course, there is a proviso that, in cases in which a consolidated rent, irrespective of the area, was previously fixed, no additional rent can be charged. But the proof of this special plea is on the person making it. It would be an easy matter, therefore, for zemindars to get an enhancement; and one may safely predict that the result of the survey will not only be to introduce order and certainty, but also to place the jama of the zemindary on an accurate and satisfactory basis.

The advantages to the tenant from the survey and record of rights are too patent to demand demonstration. In fact, those who oppose it, aver that such measures originate with persons who share the views of Irish Land Leaguers, and are desirous of introducing the agrarian difficulties so common in their own country. Yet, clear as this aspect of the question is, the opposition would have us believe that the measure is looked upon with horror by the tenant classes.

Besides the other disadvantages and inconveniences resulting from our having no trustworthy record, there is a common source of harassment to the tenant, which, though it may not widely prevail, yet illustrates in a pointed manner my contention, that, unless some method is adopted of removing opportunities of fraud, it will be committed. The Act makes a special provision for the realization of rent. In addition to other remedies, it provides that, where the landlord has not received any security for his rent, he may ask the court to distrain the crop of the tenant for the rent, if not of more than a year's standing. The officer distraining is to

satisfy himself that the applicant is a registered proprietor and that the tenant is liable to pay the jama claimed from him. After this he is to issue process, and no objection, either by the tenant or by a third party, can be entertained by that officer. The tenant and the third party have their remedy in a suit for damages only, after depositing the full claim. Advantage is taken of this provision in the present state of uncertainty to harass the real tenants. A fictitious person is set up as a tenant of a large area of land, and pattas and kabuliyats are exchanged. The man of straw is, of course, in arrears in the very first year of his tenancy. A petition for distraint of his crop is put in, and the officer, having satisfied himself as to the tenant's liability to the amount claimed, issues the process. The actual tenants then get wind of the trick and come to the court for redress. The court, however, can give no redress under the law. The area covered by the patta is generally very large, including, within its ambits, the tenures of several tenants, and consequently the jama claimed is proportionately large. None of the actual tenants are able to deposit the whole sum claimed. They are equally unable to fight single-handed for damages for improper distraint, and the zemindars often escape from the liability, owing to there being no correct record of the lands held by each tenant.

The result is opposition by the actual cultivators to the distraining officer. They cannot allow the fruits of their year's labour and industry to be pillaged before their eyes. The court peon's head is, perhaps, broken; he complains to the court; criminal proceedings follow, and the tenants find themselves, for no fault of theirs, in jail.

The nefarious proceeding, once or twice repeated, gains the desired end. The tenant falls prostrate at the feet of the landlord, who dictates his own terms, and what he could not do by legal means, he is able to do indirectly for want of a record that might check him in his proceedings. If such things are allowed on large estates where one expects to find the rights of others protected and preserved, there can be no security in smaller ones. The above instance fully illustrates the saying, that opportunity makes a man a thief, no matter how high his position and how much removed from want he may be.

I yield to none in my solicitation for the preservation of the just rights of the zemindars, and, though not a large landholder myself I have interests bound up with those rights. If misguided or interested persons clamour for the continuance of the present reign of mystery and darkness favourable to their peculiar acts, it is the duty of all right thinking men to make a stand against them, and strengthen the hands of Government at such a crisis.

ART. X.—BANKING IN THE MOFUSSIL. [A REPLY.]

[In justice to the author of the article on "Banking in the Mufassal," in the *Calcutta Review* for October last, the Editor feels bound to point out that he did not, as the writer of the following reply alleges, make any charges whatever against the Mufassal Banks indiscriminately. On the contrary, not only did he, *in limine*, distinctly limit his criticisms to "some" of the Banks in question, but he supplemented them with a description of "a better type of Indian Bank," for examples of which he referred his readers to the list of Banks given by him in the article.

He affirmed, in fact, no more—indeed, he affirmed less—than the writer of the reply himself admits, when, after accusing him of making sweeping charges, with the object of prejudicing the public against one and all of the Mufassal Banks, he goes on to say:—"It is very possible that some of them" (the Banks that have not failed) "deserve the severe strictures that have been passed, as there seems no reason to suppose that they are managed differently from the Banks that have failed."

As to the suggestion of the writer of the reply, that the author of the article should have taken the public into his confidence and informed them which are the good, and which the bad Banks, we can hardly suppose it to be intended seriously.

There is nothing, again, in the original article to indicate that its author, as the writer of the reply suggests, considers it extraordinary that the Mufassal Banks divide a higher rate of interest than they charge for loans. On the contrary, several consecutive paragraphs of the article are devoted to showing how this is done; and no one with any knowledge of Banking in the Indian Mufassal, or elsewhere, would be likely to see anything extraordinary in it.]

IN the October number of this Review, there appeared an article on Indian Banking, written by one who had evidently devoted much attention to the subject, but containing several misleading statements which ought not to be allowed to remain in the minds of the public without contradiction. At a time when two of our Banks have failed, and have thereby caused much hardship to numbers of confiding constituents, it seems a pity that articles should be written, and have prominence given to them, the only effect of which must be to shake public confidence in other well-known institutions, which, there is no doubt, have done, and are doing, much to promote the industrial and financial prosperity of the Mofussil community.

It may be easy, as the writer states, to float an Indian Bank; but the fact, if it is a fact, that the initial arrangements are so very easy as we are told to believe, is no argument why the existing system should be changed. After recent disclosures, of course, it is open to belief that the early history of some of the Banks would ill bear the light, and it would be well for intending depositors to scrutinize carefully the published reports of any Bank, before entrusting it with their money. But it is not right, that, if the public choose to be taken in by the blandishments of one class of Banks, all sorts of vexatious

restrictions should be imposed which would result only in hindering the usefulness of the other class.

It may not appear extraordinary to most people, as it apparently does to the writer, that the Banks divide an even higher rate of interest than they charge for lending out their share-capital. He will probably find, if he takes the trouble to enquire, that all sound and well-paying banking institutions, both in this country and at home, very likely do the same thing. All the first class London and Provincial, and also the Scotch Banks, pay dividends varying from 10 to 20 per cent., which probably averages three times more than the rate of interest they receive for lending out their capital. To suppose that Banks in India can command, on an average, 10 per cent. in placing their money at interest, is absurd. Most of the Bank Managers will agree that 7 per cent. is nearer the mark, and even that is obtained, not on the total amount of money deposited, for which they pay, say 4 per cent., but probably only on three-fourths of it. It is possible that 10, or even 12, per cent. is obtained in some cases, say for small loans on personal security, but these rates are low indeed compared with what are paid to shroffs and *mahojans* for the same class of business. During the last few years rates have been very steadily on the decline, and it is very unlikely that, at the present time, more than 8 per cent., if even so much, can be procured for first class loans on landed property, which is perhaps the security most generally obtained : and in discounting mercantile bills, it is well enough known that rates have not ruled much over 3 per cent. during the last few months. We have shown, then, that Indian Banks pay *fair* dividends, neither higher nor lower than those distributed amongst shareholders of English Banks. Fault is found with them for paying *steady* dividends. Banks, as a rule, aim at doing so, generally carrying forward a sufficient sum from one-half year to meet any possible deficiency in the next ; and it is to a great degree essential that this custom should be adhered to, for a fall in dividend would entail a fall in stock, and it is always considered desirable that Bank's shares, more than shares of other Companies, should fluctuate as little as possible in the market, and that they should always be able to command a steady price. It is obvious that a sudden fall in the value of stock would be apt to excite rumours of insolvency, and once such rumours were set a going, no banking institution, however high it stood in public opinion, and however excellently it was managed, would be able to retain its reputation.

Of course, it is conceivable that a time may come in a Bank's history, when a heavy loss must be faced, as occurred quite recently in the cases of two or three large English Banks

having branches in India, China, and Australia ; but it should be remembered that the business of a Mofussil Bank is of an entirely different nature from theirs. Its business is almost entirely to advance money on security of mortgages on landed and house property and on other substantial security, such as Government paper and stocks and shares of reliable companies, on debentures, and on personal security, which latter should be accompanied with life assurance policies. Some of the Banks may also be in the way of discounting *hundis*, but this can only be to a small extent.

To keep to this line of business, and we are given no reason to suppose that the better class of Mofussil Banks do not, would, it is submitted, most certainly enable them, once their connection was established, to divide their profits, each half-year's being equal to those of the preceding one. There is no doubt that there is large scope for business of this nature in up-country districts in India. When one takes into account the extortionate interest that unfortunate borrowers have to pay to native money-lenders (a usual rate being one anna per rupee per month), it appears to us that the wonder is, not at the moderately high profits which Indian Banks, managed by Europeans, have hitherto been able to divide, but that dividends much higher have not been declared. A Bank whose business is not subject to any violent fluctuations in exchange, and not liable to any loss from large trade failures, might always be expected to maintain its dividend ; and even although, as is happening at the present time, rates obtainable for money advanced in the way that has been indicated may not rule as high as formerly, still an institution, energetically and faithfully managed, may reasonably count on its influence extending and its connection widening, so that, with increasing deposits to work with, the fear that its profits may be reduced, will not readily be engendered. The notable fact in connection with one or two of the more important companies is the large Reserve Funds that have been accumulated, approaching, in one instance, almost to the amount of subscribed capital, and this is a fact that the Managers of those concerns may most justly be proud of.

And here it is proper to call attention to the grave charge that is made, when it is stated by the Reviewer that money is borrowed on the Government Securities in which the Reserve Funds of some of these companies are invested, and lent out again, perhaps on very insufficient security, at rates of interest varying from 10 to 12 per cent. One might have thought that, instead of making vague insinuations like this, it would have served a much better purpose if the anonymous writer had allowed the investing public to share the benefit of the knowledge which he apparently possesses and published the names of

the Banks that indulge in this undoubtedly irregular proceeding. Other assertions of a like nature are made, such as "Interest upon bad and doubtful debts owing to the Bank, is regularly charged to the debtors, and as regularly taken credit for in the 'Profit and Loss Account,' whether realized or not. Once in the 'Profit and Loss Account,' the transfer of unrealized interest to the 'Reserve Fund,' when the 'Divisible Balance' comes to be distributed, is easy, and so is the payment of dividend out of capital." This is a sweeping charge to make, and though it may have been true with regard to the Banks that have failed, how can the critic have any means of knowing whether it is true regarding all, or any, of the others, which he includes in one list and attacks so indiscriminately? It is easy to bring forward charges like these, but the author of them would not find it so easy to prove them.

It seems very evident from the whole tone of the article that the author's intention has been to prejudice the mind of the public against one and all of the Mofussil Banks, and to bring their system of doing business into discredit. At the same time, it is by no means the intention of the writer of this reply, to attempt to defend them all. It is very possible that some of them deserve the severe strictures that have been passed, as there seems no reason to suppose that they are managed differently from the Banks that have failed. But it is proper to bring prominently before the notice of the public, that there *are* local Banks in India managed by Europeans who have been professionally trained at home, and that they are in most respects worked similarly to the Presidency Banks, but differ principally from these, in that, having wider articles of association, they are enabled to do a more comprehensive business. The critic seems, in some measure, ashamed of the statements with which he has sought to damage the reputation of the local institutions, for, at the tail-end of his attack, he is good enough to inform us that there is a "sort of Bank, though it may also have had a modest beginning, which was started to meet a public want, and with a determination that it should be worked on sound principles, and with business-like prudence." Perhaps he might here again have taken the public into his confidence, and let those who have money to invest, share his knowledge as to the names of Banks which might be considered safe to deposit it in.

We come now to the suggestions made regarding "Fixed deposits." It is stated that, "in England, deposit receipts are now negotiable instruments;" in India they are not. This may be; but it must be borne in mind, that these "deposit receipts" are not "fixed deposits." The custom of accepting deposits for fixed periods, only obtains with Colonial Banks

having offices in London, and not with purely English or Scotch Banks. A stipulation made by Banks in Scotland is, that no interest will be allowed, unless the money has remained for one month. Deposits at home differ in this respect also, that the rate of interest allowed is subject to certain fluctuations, while, in India, the period of the deposit is not only fixed but the rate of interest also. As to receipts being made negotiable, it is probably not of much importance to a Bank at home, whether they are legally so or not ; for it is not likely that one in a thousand would require to be negotiated. One cannot conceive how having negotiable receipts could possibly suit the convenience of depositors, while, in more ways than the one indicated in the article, it would be a positive nuisance to Bankers. An alternative suggestion, and one that is given with all due deference, is this—to do away with deposits for fixed periods, and assimilate the system to that which obtains in Scotland ; or, as is practised in some of the London Banks, allow the Bank to have the option, in the case of large amounts, of stating on the receipt that seven, fourteen, or thirty days' notice must be given before the sum can be withdrawn. The Mofussil Banks might also agree amongst themselves to fix a common rate of interest to be altered by the Managers, or a Committee of Managers, from time to time, in accordance with the changes in the Calcutta market. If Mofussil Banks intend keeping up to their average of profit, it is most probable that they may shortly be compelled to reduce their rates of interest for deposits, and it is obvious, that it would be advantageous for all, or at least for the more important of them, to work together in this respect, and so avoid unnecessary competition with one another. The business of the Banks is rapidly extending and coming, more and more every year, into touch with the great centres of trade in the country, and into contact with formidable rivals, and, to keep on an equal footing with them, they may find it necessary, at no distant date, to adopt some such plan as has been suggested.

The appointment of auditors for a Bank is a most important matter, and the greatest care should be observed in choosing a suitable man. It would be well for shareholders to insist that no one but a properly qualified or chartered accountant, and one who is not a shareholder himself, or in any way interested in the Bank's success, should be chosen. Even although a chartered accountant may not have the local experience of the affairs and position of those who are indebted to the Bank, that might be considered necessary, still, he has a thorough knowledge of accounts, and might be depended upon for a fair and conscientious and independent examination of a Bank's balance-sheet. The same accountant might be retained

for, say seven years, if possible, but not for more, as it would be advantageous for shareholders to obtain, from time to time, a fresh view of their position. The Mofussil Banks will no doubt be glad to consider the suggestion, that they should "allow their depositor-creditors to appoint, at the Bank's expense, a professional auditor (where one can be got) to act along with the auditor, or auditors, appointed by the shareholders," when it has been adopted by Banks at home, or by the three Presidency Banks in India. And in the same way they would probably raise no objection to Government appointing an Inspector to examine their accounts periodically, if all other Banks in the country, including private Banking firms, were placed on the same footing.

THE QUARTER.

IF we except the agitation against the proposed Cadastral Survey in Behar, and the mild flutter caused in Russophobist circles by what is called the Pamir incident, little or nothing of a political character has occurred in India, since the date of our last retrospect, to disturb or excite the public mind.

The opposition to the Cadastral Survey in Behar, which seems, so far, to be entirely confined to the zemindars, finds so little justification in what is contemplated by the Government, that it is difficult at first sight to believe that it is not, to a great extent, factitious. It is morally certain that the class in question, in the vast majority of instances,—and in a less conspicuous degree, perhaps, the rayats also—have little to lose and much to gain from the results of the survey, which will put an end to three-fourths of the present ruinous litigation between landlords and tenants, and thus render the recovery of rent by the former in the future comparatively easy and inexpensive, while it will, at the same time, protect the poorer classes of tenants from a vast amount of extortion at the hands of zemindaree amlah, village officials, and thikadars.

Landlords in Behar, however, are so much in the hands of their amlah and mookhtars, depend so largely on them for their knowledge of their estates and what goes on upon them, and would be so much influenced by their views as to the probable results of such a measure, while the amlah and mookhtars, on their side, are so keenly interested in perpetuating the existing confusion and uncertainty, that it is highly probable that the opposition to the measure may be as sincere as it is mistaken.

The gambling spirit is so strong, too, in the people of India, and their passion for litigation, as a form of gambling, or at all events as a pastime which affords a somewhat similar excitement, is so great, that not impossibly both landlords and tenants may look forward with genuine distaste to an operation which will foreclose for ever so fine a field for the gratification of these propensities, as unmeasured holdings and indeterminate rights present. A vast deal more money is probably lost on either side, than is ever gained by them, in litigation between landlords and tenants. But neither, we imagine, fully realize this fact, and hope springs eternal in the breast of both—the hope of getting the better of his antagonist in the end.

As to the estimated cost of the survey, to the landlords, at least, it is a mere bagatelle, compared with the service it will do them, or with a multitude of far less useful objects on which they are accustomed to spend money without stint or compunction.

Of the Pamir question, regarded as one of territorial claims, if any question of territorial claims is really raised by the recent incident, we know too little to be able to pronounce any definite opinion. Some of the local journals have disburdened themselves of an amount of minute information on the subject which would be astonishing even if the boundaries concerned were those of their own parish instead of extensive territories which fade into remote wastes, barely trodden, if at all, by civilized man.

We should imagine that it would be a matter of absolute unimportance, from either a strategical or a political point of view, if Russia were allowed to do as she likes with the entire Roof of the World. But we may be mistaken; and the point is certainly not one on which we feel tempted to dogmatize.

If, however, the narrative of the *Englishman's* special correspondent is essentially true, there is something more than a question of boundaries involved in the incident, viz., the right of the Russians to arrest a British Officer in territory which was at the time actually occupied by the Chinese. This act could be justified, if at all, only on the ground that the Russian force which effected the arrest was a belligerent force acting against China. But, on this assumption, how, it may be asked, would it be possible for Russia to justify the passage of this force through Chitral, a State admittedly under the protection of the Government of India.

The Viceroy left Simla, on his autumn tour, on the 14th October, and returned to Calcutta on the morning of the 28th November, having, in the interval, visited the States of Cashmere, Gwalior, Bhopal and Indore. The most important incident of the tour was the speech delivered by His Excellency at the banquet given to him at Sreenagar by the Maharaja of Cashmere, or rather the decision by which it was followed, and which formed the subject of a special announcement to the Press, to reinstate the Maharaja in some of the powers which he surrendered by his so-called voluntary act of abdication in 1889. After referring to the Maharaja's intimation of his readiness to accept and continue the reforms initiated by the Council, and his proposal to reduce his personal expenditure and that of his family and dependents, the announcement states that the Government of India now propose, as an experimental measure, to revise the existing system of administration in the sense

above indicated, it being understood that the State Council shall remain unchanged, and that, in the event of a difference of opinion arising between the Maharaja and the Council, it shall be open to either party to refer the matter to the British Resident, without previous consultation with whom no step of importance shall be taken.

Under the new arrangement, the Maharaja is to be President, and Raja Amar Singh, Vice-President of the Council, and the latter, in recognition of his services in connection with the recent administration of the State, is appointed a Knight Commander of the Star of India.

The change will not, probably, much affect the administration of Cashmere, which, in all matters of importance, will be controlled by the Government of India; but it will restore to the Maharaja the dignity which he probably most cares about, and it will tend to safeguard the Government against embarrassing agitation and still more embarrassing enquiries in Parliament.

If we except some remarks made by him at Gwalior in commendation of the investment of the surplus funds of Native States in Government paper or railways, the Viceroy's speeches at that place, and at Bhopal and Indore, were mainly of personal or local interest, and of a complimentary character.

What he had to say on topics of more general interest, was appropriately reserved for a more representative audience at the St. Andrew's dinner in Calcutta on the 30th ultimo.

Amid the multitude of questions on which Lord Lansdowne took the public more or less into his confidence on that occasion, perhaps the most noteworthy, from a political point of view, was that of the attitude of the Government of India towards the Native States generally. After describing, in terms which added nothing to what was already known, his pleasant experiences in the States he had just visited, he went on to say that he dwelt upon these facts, because he regarded it as a matter of first-rate importance that the States in subordinate alliance with Her Majesty should be governed in such a manner that the Government would have no scruple in preserving to them the measure of independence which they at present enjoyed, and of which it would be an act of injustice and a distinct misfortune to the Empire to deprive them, and he added:—

“They may not, all of them, be governed entirely in accordance with our ideas of good government; but it is a question whether, in spite of this, they do not, from their point of view, prefer to remain under their own Rulers, even if they are denied some of the administrative luxuries which we provide for the people of British India. Be this as it may, the territory directly under the Government of India is already so

large, and our tendency to govern it in accordance with uniform principles, and according to stereotyped methods of administration, is so strong, that, from our point of view, I should regard with unfeigned regret any events which might force us to assume responsibility for any part of the large areas at present governed by Indian Chiefs and Rulers. It is instructive both for the Natives of this country, and for Europeans, that the two kinds of government should be in force side by side, and in the full view of public opinion. We are all of us fond of dwelling upon the necessity of decentralizing our administration, and, considering all the circumstances of India, I doubt whether there is any form of decentralization more useful than that which leaves the domestic affairs of a large portion of the country to the management of its own people."

"Subordinate alliance with Her Majesty" strikes us as a new phrase in this connection, and it is one which, though to the Staff of the Foreign Office it may seem to strike a discordant note, should be highly gratifying to the Native Chiefs concerned.

The lessons of the census; the prospect of peace or war; the financial position of the Empire, and the fiscal policy of the Government, all formed subjects for comment of a more or less interesting, if somewhat trite, character.

As to the first, His Excellency remarked that two conclusions might be drawn from the rapid growth of the population—one, the flattering, but not altogether comforting, conclusion, that it proved the success achieved by the British Government in combating the life-destroying agencies which imposed a check on population in former days; the other, that it becomes every day more and more its duty to endeavour to relieve the the pressure of population on the means of subsistence by bringing new tracts under cultivation, and by encouraging migration from the more to the less densely-peopled parts of the country. These, however, are mere palliatives, from which only temporary relief can be expected; and it is matter for surprise that no reference was made to the necessity for encouraging habits of prudence, or of promoting industrial enterprise. The omission is the more remarkable, that the able speech in which Mr. Mackay proposed the Viceroy's health, distinctly challenged reference to the question.

As to the second question, while expressing a confident hope that there was little prospect of strife within our own borders, Lord Lansdowne spoke with more diffidence regarding aggression from without, immunity from which, he remarked, depended on events occurring in other parts of the world, and beyond our control.

Referring to the financial position, His Excellency pointed out that the maintenance of equilibrium depended hardly less upon events beyond the control of the Government than that of international peace, inasmuch as the triumph of the gold-bugs at Washington, or the anti-opium party at Westminster, might at any moment upset all calculations. In this there was nothing which we have not heard repeatedly before, or which is calculated to inspire much confidence in either the self-reliance or the resourcefulness of the Government. Nor, on the question of taxation, is there much comfort to be extracted from His Excellency's assurance, that he is not only alive to the objections to an income-tax in India, but prepared to give them full weight whenever the moment for remission arrives, accompanied, as it was, by the reservation that the increased salt-tax and the export duty on rice are equally objectionable.

In the course of his speech Lord Lansdowne took occasion to refer to the scarcity, and the apprehensions of still more severe distress, which the prolonged drought has caused in parts of Rajputana, in Bombay, the Deccan, Madras and Hyderabad, as well as in Burmah. On the whole, His Excellency took a hopeful view of the situation, contrasting the smallness of the numbers in receipt of relief with the experience of the Ganjam famine in 1889. It is to be feared, however, that this comparison ignores some important distinctive features of the present calamity, and that the outlook is really much more serious than Lord Lansdowne would seem, from his tone, to have believed. There is every probability that, in a great portion of the Deccan, at all events, the effects of the late deficient harvest will be aggravated by a total failure of the *rabi* crops, which would mean little short of downright famine.

As far as official action goes, the Manipur "incident" has been closed, somewhat lamely, as it must appear to most people, by the announcement that, as the result of a military enquiry into the circumstances of the Expedition held by General Collett in April last, the Home authorities, acting on the recommendation of the Government of India, have ordered that Captains Boileau and Butcher, the first and second in command after Colonel Skene's departure from the Residency on the night of the 26th March, be removed from Her Majesty's service.

Neither the evidence, nor the grounds of the decision, have been published, so that it is impossible to form any opinion of the justice of the sentence. But looking at the difficulty of the position in which the dismissed officers were placed, it seems an extraordinarily severe one.

In speaking of the conclusion as a lame one, we refer, of

course, to that part of the result of the enquiry which has been made public. Presumably the investigation extended also to the conduct of the expedition during the earlier part of the day ; and the fact that the responsible officer is dead seems scarcely a sufficient reason, from a military point of view, for the suppression of the result.

The general opinion will probably be that, whatever errors Captains Boileau and Butcher may have committed, they sink into insignificance before those to which the disaster was primarily due, and for which very few people will be inclined to hold Colonel Skene alone responsible.

One cannot help feeling that General Collett was not the officer by whom the enquiry ought to have been conducted.

In connexion with Manipur, it may be added that the condemned princes, together with the minor culprits, have been sent to serve their sentences at Port Blair ; while the ex-Maharaja Sura Chandra Singh, who, since his flight, has been residing in the suburbs of Calcutta, died of fever and dysentery on the 3rd instant.

Mrs. Grimwood's promised book, entitled " My Three Years in Manipur," was published in London last month, and has, on the whole, been favourably criticised by the Indian press. The work contains little, that is not purely incidental, regarding either the political or the military aspects of recent events ; but it does contain a very warm eulogium of the late Senapati, Tekendrajit, which, whether it is deserved or not, reads somewhat strangely, from such a pen, after all that has happened.

The *Bangobasi* case, which was pending when we last wrote, terminated in a somewhat unexpected manner ; the Jury, as was not unnatural, being unable to agree, and the Chief Justice, contrary both to precedent and to the generally received interpretation of the law, dismissing them, without ascertaining the opinion of the majority, on the ground that in a case of that character he could accept only a unanimous verdict. The case was kept on the board as a *remanet* ; but, in the meantime, the defendants submitted a petition expressive of the most profound contrition, and undertaking, in emphatic terms, to give no similar cause for offence in the future. At the same time a change for the better—which would be marvellous had it occurred, say, in Ireland—has come over the tone of the native press, both Vernacular and English, and the Government has, not unwisely, taken advantage of the opportunity thus offered it to withdraw the prosecution, the Advocate-General at the opening of the present Sessions entering a *nolle prosequi*.

On the principle of " All's well that ends well," the prosecu-

tion has thus been thoroughly justified. But the *coup* was a hazardous one ; and unless, as probably is the case, the Government had made up its mind to amend the law in case of defeat, a verdict of acquittal would have had most untoward consequences.

Whether as the result of the change in question, or from other causes, the public mind seems to have entered on a period of unusual calm. With the exception of the outbreak in the Rampur Jail, an isolated event which possesses no political significance, there has been a complete cessation of the disturbances that had become so unpleasantly common of late, and even the Age of Consent Act has, to all appearances, entirely lost whatever sting was supposed to reside in it.

In calamities of another kind, the past two months have been unusually fruitful.

There has been a terrific cyclone, which seems to have originated, about the 1st ultimo, near the Andaman Islands, and, after devastating the settlement at Port Blair and inflicted less serious damage on the Orissa Coast, some days later, apparently recurved to the North-Eastwards, and filled up, about the 7th or 8th instant, somewhere near the head of the Bay and to the Eastwards of the Pilot-station.

At Port Blair, on the night of the 1st and morning of the 2nd instant, the storm raged with almost unprecedented fury, the centre passing over the island between 3 and 4 A. M. Nearly every building in the place, including Government House, was more or less seriously damaged, the barracks at many places being blown down, upwards of a hundred of the convicts killed or injured, and the crops almost entirely destroyed. Saddest of all, the pilot brig, *Coleroon*, is missing from the Sandheads, under circumstances which leave little doubt that she must have foundered with all hands, and the I. M. S. *Enterprise*, which was anchored in the harbour at Port Blair, was torn from her moorings and driven on to South Point Reef, where she went to pieces, the entire crew, with the exception of six hands and the officers on board, being lost.

The latter wreck was the occasion of an act of heroism on the part of a number of the femal convicts, which exhibits the womanhood of India in a bright and unfamiliar light, though Indian history is not wanting in episodes indicative of a latent capacity for exalted courage and self-sacrifice on the part of the sex. Six survivors from the wreck, after swimming some distance, endeavoured to land opposite the female jail ; but the heavy surf that was running beat them back, and then, when destruction seemed inevitable, a band of these poor women, prompted only by their own feelings of compassion, bravely joined hands, and, forming a chain, breasted the sea, and succeeded in bringing the men to land.

On the 4th ultimo a terrible accident happened near Nagpur, to a passenger train which was conveying the Commander-in-Chief of Bombay with his Staff, and a detachment of the North Lancashire Regiment, from Bombay. When the train was within about eleven miles of Nagpur, the tyre of one of the two engines which were hauling it, broke, with the result that both engines and tenders, together with fourteen carriages, left the line and were completely wrecked. Nine of the European soldiers, besides the engine drivers, one of the guards and several natives, were killed on the spot, and twenty-four European soldiers, three of whom have since died, and a number of natives, were more or less seriously injured. The Commander-in-Chief and his Staff, almost by a miracle, escaped unhurt, though the carriage in which they were travelling was thrown down the embankment and destroyed.

Another disastrous accident occurred on the morning of the 5th instant, near Okra, between Multan and Lahore, on the North-Western Railway, where a collision took place between the up and down Mails, resulting in the deaths of between thirty and forty persons.

Finally, we have to record the tragical death of Lieutenant Mansfield, R. N. R., the enterprising aëronaut, owing to the collapse of his balloon at a height estimated at a thousand feet, on the occasion of his recent ascent at Bombay on the 10th instant. The accident, which was witnessed by a large concourse of horrified spectators, seems to have been due either to the imperfect way in which a previous rent in the balloon had been repaired, or to some unperceived weakness in the material, caused by its immersion in salt water after the first ascent. On attaining the height named, the envelope of the balloon was observed to part suddenly in twain, and descend with fearful rapidity, its unfortunate occupant vainly endeavouring to detach the parachute with which he was provided, from the wreck of the balloon. The corpse was found horribly mutilated, and death must probably have been instantaneous.

The military operations of the season include a series of small expeditions, some punitive, and others for administrative purposes, or designed to strengthen our relations with the tribes on the North-Eastern frontier, any detailed account of which to be intelligible, would exceed the limits of our space. Some of these have already been brought to a satisfactory conclusion, and any serious collision seems improbable. It has been decided to advance somewhat further in the Chin hills and establish a new fort at Falam in the Tashon country, and a boundary dispute with China seems to have arisen, or to be threatened, on the Namwan river, to the east of Bhamo, owing to the occupation by the military police of an old Chinese outpost.

A complication of far greater importance has arisen on the Gilgit frontier, where the tribesmen of Hunza, taking umbrage at the determination of the military authorities to construct a road from Gilgit to Chalt, assembled in force at the fortified village of Nilt, with a view, as appeared, of attacking the fort at Chalt, which had been recently reinforced by Colonel Durand.

In this condition of things, Colonel Durand resolved on assuming the offensive, and a force composed of men of the 5th Ghurkas, the 20th Panjab Infantry and the Cashmir Imperial forces, under Captain Aylmer and Lieutenants Boisragon and Badcock, accompanied by Colonel Durand, was detached to take and occupy the position at Nilt. After very severe fighting, in which Colonel Durand himself and Lieutenants Badcock and Gordon were wounded, and some thirty non-commissioned officers and men killed or wounded, this operation was carried out on the 2nd instant, and the enemy driven from their stronghold, which was occupied by our troops.

On the 3rd and following day, further fighting seems to have taken place with the enemy, who held a strong position at Mayun, on the opposite side of the river from Nilt.

A Resolution has been published by the Government of Bengal, summarizing the measures determined on in connexion with the recommendation of the late Committee for the reorganization of the Police. The principal changes are the extension of the Chowkidaree Act to all villages, irrespective of population, and the division of the country into blocks, each of which is to have one or more chowkidars, according to its size; the appointment of circle officers for the supervision of the chowkidars; the transfer from the latter to the Punchayets of the duty of reporting statistics, epidemics, the state of the crops, and the like; the introduction of provisions for the election of Punchayets in certain cases; the transfer of the duty of investigation from head-constables to sub-inspectors, together with some improvement in the pay of chowkidars and head-constables, and the introduction of a new set of rules for the purpose of securing more effective supervision of subordinates by District Magistrates.

The resignation of Captain Petley, the popular port officer of Calcutta, owing to the resolution of Government to convert his appointment from a permanent into a temporary one, has caused great dissatisfaction among the Shipping and Mercantile community, and strong efforts are being made to induce the Government to reconsider its decision.

The question of the terms on which ships are to be allowed, or compelled, to use the new Kidderpore Docks, when opened, has formed the subject of considerable discussion between the Chamber of Commerce and the Port Commissioners, and, should

the latter body persist in carrying out what their Secretary lately declare to be their intention, of closing the jetties to ships from European ports, with the view of forcing them into the docks, a very serious question is likely to arise between the Mercantile community and the Government; which distinctly pledged itself to leave all sea-going vessels frequenting the port full liberty to do their work where it best suited them.

A strong representation on the subject has been made to the Port Commissioners by the Committee of the Chamber, supported by the unanimous opinion of the various local associations concerned, that the proposed action would be an unjustifiable breach of faith.

The trial of the great Imperial Diamond case before the Calcutta High Court commenced on Monday, the 7th instant, and is still proceeding. On the second day the Court decided that the evidence of the Nizam of Hyderabad, taken on the commission issued by the Police Magistrate, could not be received at the Sessions trial; while, at the same time, it refused to issue a second commission.

The ceremony of unveiling the statue of Lord Dufferin which has been erected on the Calcutta Maidan, was performed by Lord Lansdowne on the 8th instant in the presence of a large assemblage of spectators, and furnished His Excellency with the occasion of an eloquent tribute to the abilities and statesmanlike qualities of the late Viceroy.

To Home and European affairs, the space remaining at our disposal will permit only a brief reference.

The death of Mr. Parnell, which occurred at Brighton on the 6th October, from pneumonia, the result of a severe chill, has produced less change in the aspect of politics than it would have done had it taken place a year or two sooner. For the moment, it was thought in some quarters that it would put an end to the struggle between the opposing factions of the Irish party; but it seems rather to have embittered it, though the result of the Cork election shows that it has destroyed what small hope there may have been of the Parnellites recovering the influence, which, mainly owing to the attitude of the priesthood, was shattered by the events of last year.

Mr. Parnell was buried at Dublin on Sunday, October 11th, the Lord Mayor in state taking part in the funeral procession, and the ceremony being attended by an immense concourse of people.

The death of Mr. W. H. Smith, which took place at Walmer Castle, on the same date as that of Mr. Parnell, and that of Mr. Raikes, the late Postmaster-General, have led to important changes in the distribution of Government offices, Mr. Balfour

being made First Lord of the Treasury and leader of the House of Commons, and Mr. W. L. Jackson, late Secretary to the Treasury, succeeding him in the Irish Secretaryship; while Sir J. Fergusson has been transferred from the Foreign Under-Secretaryship to the Post Office; Sir John Gorst takes Mr. Jackson's place at the Treasury, and the vacancy in the Under-Secretaryship for India is filled by Mr. George N. Curzon, whose travels in Central Asia and Persia have made his name well-known in India.

The first of these appointments has been received with acclamation by the party, and the others all command general approval. Sir J. Fergusson has signalized his installation in the Post Office by an important step towards the solution of the recruiting question, in the shape of a resolution to reserve a large proportion of the subordinate appointments in the Department for time-expired soldiers with the requisite character and qualifications. The example will probably be followed in other public Departments and will go a long way towards making service in the ranks as popular as it now is the reverse.

Mr. Balfour, since his transfer to the Treasury, has been elected Chancellor of the University of Edinburgh.

At Newcastle, on the eve of Mr. Parnell's death, Mr. Gladstone delivered an address which, though it throws little or no light on the prospects of the coming Session, is important as an indication of the programme with which his party is likely to go before the country at the next general election.

On the Irish question, it contained nothing that is new, and at the same time showed that the speaker had unlearned nothing, unless it be the belief that the people of England are prepared to allow their own affairs to be subordinated to its settlement.

As to the probable adequacy of the Local Government Bill which the Ministry propose to introduce in the coming Session, he naturally pronounced himself sceptical, while, at the same time, he assured his hearers that any Local Government Bill must advance the cause of Home Rule, which he was confident the constituencies, when the time came, would grant. Another point on which he was incredulous, was that of the improved condition of the country, to explain away which he marshalled a long array of figures, which have since been shown to have been either inaccurate or irrelevant; and he further hinted that the control of the Police was a *sine qua non* of any tolerable scheme of Irish self-government.

As to the question of disestablishment, he declared the event to be certain, though he was careful to fix no time for its realization, the only obstacle in its way being, as he put

it, the difficulty of deciding whether Wales or Scotland was to be the first to obtain the benefit of emancipation from the existing order of things.

As to the House of Lords, he judiciously told his hearers that the question was remote, but added that it might be precipitated if the Lords were rash enough to throw out his Home Rule Bill, as suggested by Lord Salisbury.

Regarding the limitation of the hours of labour, he spoke with a doubtful voice, recommending caution and circumspection, and hinting plainly that he regarded any such step as impossible in the absence of international agreement.

On the subject of registration, he expressed a strong opinion that election expenses should be defrayed by the Treasury, as also the necessary Parliamentary expenses of Labour Members.

On the Temperance question, he made a strong bid for the suffrages of the numerous faction who would dictate what their neighbours should drink. After sneering properly at the recent Ministerial scheme of compensation, which, he said, would have proved an impenetrable fortification, preventing all dealing with the drink traffic for an indefinite period, he expressed a hope that most of his hearers would live to see a thorough and effective reform, of which he indicated local option as the most desirable condition.

But the part of the speech which has attracted most attention, and of which a considerable section even of his own party appear to be ashamed, was the passage referring to Egypt. He would rejoice, he said, if, before the day came for the present administration to give up the ghost, it should be possible for Lord Salisbury to make an effort to relieve the country of the burdensome occupation, which, as long as it lasted, must be a cause of weakness and embarrassment, which was due entirely to engagements contracted by a former Tory Government, and which he greatly feared the present Government, improved as it was in its foreign policy, would hand over to its successors to deal with.

The speech has elicited crushing answers from the Duke of Argyll and Lord Hartington at the Manchester Conference; but for the substance of these we must refer our readers to the published reports.

What Mr. Gladstone said about Egypt at Newcastle was sufficiently refuted, and the policy of the Government amply vindicated by Lord Salisbury at the Guildhall banquet on the 9th ultimo. The Government, he pointed out, had inherited, not made, the situation there. In sacrificing blood and treasure to rescue the country from anarchy, they had obeyed the mandate of Europe, and they would not throw away those sacrifices by premature retirement; and he believed that, even if a

Gladstonian Government succeeded the present administration, the voice of the country would compel it to adhere to this policy.

It is questionable whether even France, though political considerations oblige her to challenge the occupation and worry the occupiers as much as possible while it lasts, would altogether rejoice in an act of dereliction which would impoverish a large body of her citizens, and probably launch Europe upon a period of confusion and bloodshed from which she would be more likely to emerge a loser than a gainer.

In connexion with this question, it should be added that Lord Salisbury has replied to the late note of the Sultan to Government regarding the Dardanelles in a despatch which was presented at the Porte on the 8th October, taking note of the information conveyed to him, expressing his conviction that the Russo-Turkish agreement implied no modification of existing treaties, and assuming that any privilege that might be conceded to any other nation as regards the Straits would equally belong to Great Britain.

The last phrase is noteworthy, inasmuch as the use of the word "belong" plainly implies that England would become entitled, as a matter of right, to any privilege conceded to another nation.

Though the world is very much in the dark as to the actual facts of the famine in Russia, enough is known to show that the calamity has attained appalling dimensions. Incidentally it has placed two features in a striking and lucid light—the extraordinary secretiveness and aloofness of the Russian Government, which has not only spared no pains to prevent the truth from leaking out, but rejected with indignation all offers of assistance from the charity of other nations, and the frightful corruption and recklessness of the Russian people themselves, even the victims squandering in drink the residual crumbs of State aid which official dishonesty allows to reach them.

A fresh illustration of the fanatical and Quixotic character of the young German Emperor has been furnished by an imperial rescript, in which, after deploring the state of things brought to light in the Heinze trial, he enjoins on her officials the most vigorous and uncompromising action against prostitution and the class of men who live on prostitutes. The necessary alterations and additions to the Penal Code, this extraordinary document goes on to say, must be considered; the Criminal Procedure tested, and measures taken to prevent Counsel from defeating the ends of justice by improper means—the latter phrase implying either a very heavy indictment against the morality of the Bar in Germany, or a no less extraordinary

conception of the functions of an advocate on the part of its author.

The hearing of the "Sayward" case before the Supreme Court of the United States has been stayed, in consequence of an announcement that the British and American Governments have agreed to refer the question of their rights in Behring's Sea to arbitration.

A grave international question, which, however, seems likely to be amicably settled, has arisen between Chili and the United States, owing to a murderous attack by the mob and police at Valparaiso on the crews of two boats of the U. S. steamer *Baltimore*, and, in Brazil, a popular insurrection has overthrown the Government of President Fonseca, who, following the example of Cromwell, had ventured to dissolve a Congress which had passed an unwelcome law over his veto.

Besides the names already mentioned, our obituary includes, among others, those of the King of Würtemburgh; Prince Lucien Bonaparte, the distinguished philologist and naturalist, Sir John Pope Hennessey; the Hon. Lewis Wingfield; Mr. George Sibley, C.I.E., formerly Chief Engineer of the East India Railway; Dr. Goodwin, Bishop of Carlisle; and of Lord Lytton, whose death has been seized upon by the local press, almost without exception, as the occasion of a criticism of the Vice-regal portion of his career, the unmeasured bitterness of which contrasts unpleasantly with the generally moderate and more or less sympathetic tone of their contemporaries at home.

The maxim, *de mortuis*, may not apply to public characters of the eminence of the late Earl; but there is a time for all things, and one might have thought that, in the present instance, regard for the feelings of the living would have imposed more restraint on utterances which could serve no immediate purpose of moment, and which find excuse in no recent provocation.

CALCUTTA, }
December 12th, 1891. }

J. W. F.

SUMMARY OF ANNUAL REPORTS.

General Report on the Operations of the Survey of India Department, administered under the Government of India during 1889-90.

THE Survey of India Department always does good work, and a good lot of it. The recorded details of its operations during 1889-90 shows no exception to this golden rule:—

Out of a total number of 24 parties and 4 detachments, working during the year, 4 parties continued to be engaged on scientific surveys connected with the principal triangulations, on astronomical observations for fixing latitudes and longitudes, and lastly on tidal and spirit-levelling operations. Of the remainder, 4 parties were employed on topographical, 4 on forest, 3 on traverse, and 7 parties and one detachment on cadastral surveys; while two parties and 3 detachments carried out geographical surveys and reconnaissances.

2. Principal triangulation for Upper Burma was continued on the meridian of $96^{\circ}30'$, and a portion of the trigonometrical party proceeded with the scheme of triangulating the coasts of India and Burma with a view to furnish artificial beacons as well as natural land-marks as a basis for future operations of the Marine Survey Department. Thirty-five points were fixed off the coast of Chittagong, extending to Akyab in Burma.

The electro-telegraphic longitude operations were resumed, and seven arcs of longitude were measured between trigonometrical stations in the Punjab, Baluchistan and Central India.

3. Observations with the self-registering tide gauge were taken at 17 stations in India, Burma, Ceylon and the Andaman Islands. In the place of three old observatories dismantled at Colombo, Galle and Madras, arrangements were made for establishing new observatories at Trincomalle, Minicoy and Diamond Island. It has also been decided to extend the tidal observations to the Persian Gulf.

4. Topographical surveys were continued in Bombay, Baluchistan and the Himalayas, and a new party took up the survey of the tin-bearing tracts in the Mergui district of Burma. The importance of developing the tin-mining industry justified the diversion of this party from revenue to topographical work.

This may be regarded as an abstract account of major operations: of minor, but by no means unimportant work, there was an infinitude done. In view of the vast field it is expected to serve, the Department is still undermanned. For which reason it was cramped and hindered in its efforts, last year, to meet the demand for new Revenue Surveys in Upper Burma, from the execution of which there is every reason to expect remunerative results; so that the economy of an inadequate establishment is questionable. The economy of publishing in a blue book photo-etchings of beautiful Himalayan scenery, and street scenes in Hyderabad, is also questionable. As to

artistic portraits of *acridium peregrinum* one is tempted to ask *Que diable fait il*—in a Survey Report? The advertisement of skilful manipulation of photographic processes might just as well be left, we think, to professional photographers.

The thanks of the Government of India are tendered to the Surveyor-General and the Officers of his Department for having produced "such satisfactory results as are shown in the Report under review, notwithstanding the difficulties caused by casualties and deficient recruitment."

Report on the Police of the Lower Provinces of the Bengal Presidency for the year 1890.

"THE hand is the hand of Esau, but the voice is the voice of Jacob." Mr. Veasey did the work, Mr. Henry writes the report on it. Including Railway police, the sanctioned strength of the force in 1890 was 76 superior, 3,549 inferior officers, and 18,503 constables. At the close of the year 59 Sub-officers were lacking to complete the tale of the establishment. A falling off in the requisite number of constables was doctored by substitution of town chaukidars. What's in a name? Both words begin with C., and we dare say the one class can subserve the occasion there is for their employment as well as the other. The Town police are variously reported on. They did not work well in the 24-Pergunnahs, Serajgunge, Patna, Chupra, Cuttack, and Puri. Complaints of inefficient street lighting as an aid to crime, are repeated, italicized as it were, in this Report. Why does not our new Lieutenant-Governor, in that trenchant style he knows so well how to employ when he likes, let it be made known to the local self-governing bodies throughout the province, whose legitimate concern this lighting business is, that he will no longer tolerate economy in expenditure of oil at the expense of public safety? Locally self-governed corporations are no more sensitive now than they were in Sydney Smith's time, and mere lamentation over their shortcomings is not at all likely to conduce to better behaviour. It cannot be dread of unpopularity that stays his Honour's hand: for we read: "That the people themselves feel the want of street-lights is shewn by a quaint petition received by the Lieutenant-Governor on his recent tour from some residents of Faridpur, who ask for 'sufficient light in the bazaar to escape fear of robbers, and to avoid mistakes committed by constables thinking customers as thieves in the dark.'"

Another standing complaint, is the irregular payment of chaukidars, *e. g.*, in Jessore, 1,042 of them were, at the end of the year under review, six months or more in arrears. And this is by no means an isolated instance. Provision has, we

are told, been made in the Draft Chaukidari Bill, now on the legislative anvil, for collection of the tax to be imposed through a special officer, and for payment through police agency :—

Mr. Henry also brings to notice the very general complaint that the Act VI chaukidars are underpaid, especially in the Dacca and Chittagong Divisions; but the Lieutenant-Governor by no means accepts this complaint as proved. The chaukidars of the Dacca Division whom he has lately seen, are a fine well set up body of men, especially those of the Backergange district, who could hardly be improved upon, and whose condition reflects credit on Mr. Schurr, the District Superintendent of Police. Provision has been made in the Draft Bill for the rate of wages of the chaukidars to be fixed by the District Magistrate between the limits of Rs. 3 and Rs. 6, and all District Officers have been called upon to report for each thana the rate which should be fixed. In the Report under review a suggestion by Mr. Hare, District Magistrate of Dacca, to divide the districts into circles or chaukies for chaukidari purposes, is noticed. This had been anticipated, and is already provided for in the Draft Bill. Mr. Henry, in describing the chaukidars in Orissa, none of whom are under the Act, quotes several of the irregularities set out by the Police Committee. Government is aware that the state of things in that Division is unsatisfactory, and is considering the alternative recommendations made by the Committee.

There have been three parties of Additional Police quartered on different parts of the Backergunge district for several years. A fourth was added in 1890. Hereanent, Sir Charles Elliott postulates that such detachments ought not to be styled "punitive police," as they are in the Report. This designation, although admittedly "practically correct," is adjudged not so "technically," since the "professed" object of the law which allows quartering of additional police in villages, is to prevent offences and not to punish the villagers for misconduct. Sir Charles, in the rôle of Doctor of Metaphysic, is a new revelation of character. We rejoice over his assurance that "there is not such a bad list of torture cases as usual." In Bogra, it seems, a Sub-Inspector was dismissed the service for striking a European prisoner with a cane. A disagreeably practical commentary, this unprecedented offence, on the presently aggressive attitude of the native press towards the ruling race. *A'propos* of insouciance "the Lieutenant-Governor approves of the orders of Mr. R. M. Waller, late District Magistrate of Monghyr, who directed the police to refuse enquiry in all cases of attempts at house-breaking where the criminal was reported to be unknown. His Honour thinks that in cases of house-breaking to commit theft and attempts at the same, where nothing is stolen, and where there is no clue given, enquiry should be refused by the police. Similarly in cases of theft of sums below Rs. 5, where there is no clue, in cases which are purely of a civil nature, and in embroidered charges of assault, where the embroidery is doubtful, enquiry should be refused."

Detection of crime is, in short, in his Honour's judgment, of very trivial importance; not comparable in importance with clean looking tabular statements of police control. Let us white-wash the outsides of our criminal cups and platters, worthy public, so that, statistically, they may present a respectable appearance to the world. For this is a statistic-ridden era: it cants in figures.

Sir Charles Elliott's conclusions on the working of the jury system in Bengal have, we are told, been submitted to the Government of India. In view of recent displacements of erewhile lawful standards of commercial morality, occasioned by Mr. Justice Prinsep's charge to the jury in the notorious Chartered Bank case, and in view of other juridical scandals, scarcely less notable, in other parts of India, the public will, we hope, be admitted to participation in the benefits derivable from Sir Charles' dicta on the subject. With regard to offences against the public tranquillity: "His Honour was glad to learn during his recent visit to Jessore that the relations between the Indigo planters and the cultivators have since become friendly again. The rupture was to a great extent due to the injudicious interference of outside agitators."

Of River Police work, the following extract from paragraph 25 is noticeable:—

There were 27 cases of obstruction, for which 18 persons were convicted. No accident was caused, nor was any serious damage done by the obstructions, which are said as a rule to have been placed on the lines either by discontented railway coolies, or by villagers who had some quarrel with the gate-keepers about passing cattle or carts, the object being to get some one into trouble and not really to upset trains.

Review of the Trade of India in 1890-91.

MR. O'CONOR prefaces his Review of the Trade of India with foreign countries for the official year ending 31st March 1891 with a summary of the course of exchange during the period dealt with. A well condensed, ably handled abridgment it is of a very important factor in Indian politics—too deranged and far ramifying a factor for adequate treatment in this portion of the *Calcutta Review*. Readers specially interested in it are referred, therefore, to the *ipsissima verba* of the clever Secretary to the Commercial Department of the Government of India:—

"The total value of the merchandise imported in the year was Rx. 69,034,900, being about 3·7 per cent. more than the imports of the preceding year (Rx. 66,560,121), and a little under what may be called a normal increase.

"The exports of Indian merchandise fell to Rx. 95,902,193, having been Rx. 99,101,055 in the preceding year, the rate of

decrease being about 3·2 per cent. This restriction of Rs. 3,198,862 in the value of exported merchandise was due in part to the same cause—the fluctuations in exchange—which helped to increase the value of imported merchandise by Rs. 2,474,779, but it was more largely due to a fall of price in opium and to actually restricted supplies, arising out of deficient harvests of cotton and rapeseed. The restriction would have been greater but for the accident that there was an unusually large demand for Indian rice in the European and Asiatic markets."

Appraised according to the population returns of last February's Census, the value of the year's trade falls at the rate of Rs. 6·8 per head of population: the census of 1880-81 showed an incidence of Rs. 5·4 per head. In other words, expansion of trade has been far more rapid than expansion of population. Of imports, the largest increases occurred in cotton goods and sugar. Minor increases under such heads as apparel, coal, drugs, glassware, metals, paper, railway material, woollen goods, and umbrellas, were almost counterbalanced by a decline under the heads—liquors, machinery, oils, provisions, salt, manufactured silk, and spices. As to the increased importation of foreign sugar, the question suggested by it to Mr. O'Connor is:—

"Is this feature of trade the result of artificial encouragement of production in Europe? or is it the result of natural causes, Indian sugar being really dearer and therefore unable to compete, or has the limit of our production been reached? If it is the result of State encouragement in Europe, then after a time the imports will diminish, if they will not cease entirely, for the bounty system will probably terminate in a few years; but, if it arises out of natural causes, we must expect imports to increase progressively with increase of population while the exports diminish."

Unbigoted friends of practical temperance will rejoice to hear that, while the trade in spirits has fallen off, imports of beer continue to "maintain their high level." The vigour and success of Russian competition with the United States in the matter of mineral oils are referred to. It appears that though this competition only commenced three or four years ago, 38 per cent. of the total imports for 1890-91 represented consignments from Russian merchants. Greater strides are predicted for the Russian trade in this commodity in the future, inasmuch as the oil sent out is good, and freights are lower from Black sea ports than they are from New York, so that Black sea shippers can place their stuff in Indian markets at cheaper rates than their rivals can afford to do. In the following paragraph a

generally unconsidered phase of the exchange melodrama is described :—

Among the imports which give increased values are a number among the classes which are sold in retail trade and are largely imported for European use. Such articles as the following are illustrations : carriages, clocks and watches, earthenware and porcelain, musical and scientific instruments and photographic apparatus, ivory ware, jewellery and plate, matches, floor cloth, paints and colours, printing material, toys and requisites for games. It is evident that the retail trader took advantage of the temporary rise in exchange to lay in stock profitably.

Here is a table denoting the values of leading articles exported :—

		Rx,
(1) Grain and Pulse	...	19,539,297
(2) Cotton, raw	...	16,502,775
(3) Seeds	...	9,343,252
(4) Opium	...	9,261,814
(5) Cotton, manufactured	...	7,702,639
(6) Jute, raw	...	7,602,010
(7) Tea	...	5,219,233
(8) Hides and Skins	...	4,695,919
(9) Indigo	...	3,073,125
(10) Jute, manufactured	...	2,481,961

Formerly the trade in opium was second in value only to the trade in cotton, and sometimes it exceeded that in value and stood easily at the head of the list. Looking at the rapid progress made in the exports of cotton twist and piece-goods, it seems likely that no long period will elapse before opium is reduced to the fifth place in the list, perhaps even to the sixth.

In face of a very general impression that India's export trade in food-grains has been increasing by leaps and bounds of late years, it will be a surprise to many to learn that, as a matter of fact, it can hardly be said to have increased at all. Figures for the last decade are adduced which show that the exports were just about the same last year as they were five years ago, and not quite $2\frac{1}{2}$ per cent. in excess of the exports of 1880-81. And last year's totals would have been much smaller than they were, had it not been for a quite abnormal demand for rice from Burma—induced mainly by failure of the harvest in Japan.

By reason of this failure the Burmese crop was requisitioned to fill up a gap not only in markets previously supplied by the Japanese, but also to supplement deficient supplies in Japan itself. It is estimated that, if this unusual demand had not been precipitated on an unexpectant market, the total export of Indian food-grains would have been less than it was by some six-million cwts.

A National Congress windbag is thus pricked :—

Another general idea, to which expression has been freely given in the native press, is that the country is being denuded of its food-supplies for exportation ; in other words, that the people are being starved to feed the people of other countries. It would be a sufficient

answer to this extraordinary statement to say that every pound of grain which is exported is paid for at its full value, and that the owner of produce which is not needed for his own consumption parts with it for export only because it is more profitable to him to do so than to sell it for consumption in the country, for if it were needed for consumption in the country, the price offered by local consumers would be at least equal to the price which is offered for export.

This argument Mr. O'Connor supplements with supererogatory agricultural statistics, showing that, concomitantly with increase of food-grain exports, there has been more than compensatory recuperative extension of areas of soil under food-grain crops. It should be borne in mind, too, that this development of acreage affords an inadequate measure of the increased yield it arithmetically represents—and does not represent:—

“Between 1884-85 and 1889-90 irrigation has made much progress, the irrigated area under wheat having increased by 24 per cent., and the irrigated area under other cereals and pulses by nearly 48 per cent. The yield is larger and less precarious than formerly on tracts that have been brought under irrigation. It should also be remembered that the extension of railways has permitted the cultivator in many places to sell to advantage surplus grain which formerly went to waste. On the whole there seems to be no reason as yet to suppose that the supply of food-grains has not increased in direct proportion with the increased population and the foreign demand.”

With regard to tea, it is suggested that planters in India would do well to recognize distinctly that the pushing competition of Ceylon must inevitably bring about in the near future a permanent fall in price—unless we can largely widen our available markets. It is pointed out that China and Japan have practically a monopoly of the tea markets in America and Australia. Russia—another large consumer—might have been added to the adverse tale. The account rendered of the year's exports is not, on the whole, encouraging. Indigo, cotton, and rapeseed fell largely, in both quantity and value, and there was also a great decline in value of jute and jute bagging, while in opium, though there was a small increase in quantity, it was accompanied by a large decline in value. *Per contra*, exports of cotton twist increased by over 19 per cent., the bulk of them for China. Exports of cotton piece-goods also increased by 13½ per cent. The principal markets for these are on the African and Arabian Coasts, in Ceylon and the Straits, “and there can be little doubt that, with the gradual introduction of civilization into Africa, Bombay should possess there an ever-increasing market for cotton cloths.” With the exception of Burma, every Indian province had to bear its share last year in the general decline of the export trade. Provincial import trade everywhere increased, more or less largely, Bombay

taking the lead in this respect. Of the whole import and export trade in merchandise with other countries, 68 per cent. was with Europe, the bulk of it with the United Kingdom. It is to be noted, however, that in the last five years there has been a material diversion of our trade from England to countries on the European continent.

We quote from Mr O'Connor's Review :—

Germany and Belgium are conspicuous in the record. for the rapid development of our commercial relations with them. With Germany our trade has increased from Rx. 944,935 to Rx. 6,086,746, being an increase of 544 per cent. in the five years. Some of this increase is doubtless trade which was, until within the last two or three years, conducted indirectly by way of England, but much of it is also trade which is quite new, owing its creation to the establishment of direct steam communication between Northern Germany and India. About half the whole value of the imports from Germany last year was represented by beet sugar, and, even though the trade was aided by the remarkable conditions of exchange which prevailed for a part of the year, it can hardly be considered satisfactory that such imports could have been successfully made in competition with local production and manufacture: the imports were large, representing 35,459 tons, valued on landing at Rx. 840,270.

Our trade with Belgium reached last year Rx. 5,629,094, having increased by 44 per cent. in five years. Until the last three years our trade with Italy largely exceeded the trade with Belgium, but the positions have now been completely reversed. France still has larger commercial relations with India than any other European country, except the United Kingdom; but as the trade increase very slowly, it seems likely that our relations with Germany may soon become more important than those with France, and that the centres in Europe of trade with India are being transferred from the Mediterranean to the Northern seas.

The development of our trade with other regions of the world is, on the whole, very satisfactory, in some cases (especially Australia) particularly so. The opium trade bulks so largely in our relations with Asiatic countries, that the decline in its value has appreciably affected the rate of progress, but the development of the trade in cotton yarn and cloths with China, Japan, and other countries, and in petroleum with Russia, has compensated for the decline in opium.

Report on Public Instruction in the Punjab and its Dependencies for the year 1890-91.

THE number of Public Scholastic Institutions rose from 2,271 to 2,328, and, concomitantly, there was a diminution of 500 in the number of scholars attending them. The decrease occurred mainly in Primary Schools, and is attributed to an unusual amount of sickness. Simulacra of Private Schools (mostly Quran schools), with less than six pupils attending them, are no longer officially recognized. This is held to explain the melting away from statistical returns of 10,962 scholars. Only, we are at the same time warned that these statistics "cannot be taken as entirely reliable." It appears to

us that the man who relies on *any* Indian statistics is, 99 times out of a hundred, a fool for his pains.

The Punjab can boast of 7 Arts Colleges and one Medical College. Distributed amongst the former were 468 alumni; males all. Studying medicine were 4 women and 124 males. As per Report :—

The total number of students receiving a University education is 592, or 47 more than last year. It has to be explained that, of the 79 students in attendance on the Oriental College, only 19 are Arts' students properly so called, the remaining 60 receiving instruction in languages only,—chiefly in Oriental Classical Languages.

The number of Secondary Schools for boys rose during the year from 250 to 257, and the number of scholars, from 44,473 to 44,778. There are besides, 26 Secondary Schools for girls, with an attendance of 1,646, as compared with 24 schools and 1,476 scholars last year. The total of Secondary Schools for both boys and girls is, therefore, 283, with 46,424 scholars. This number includes 1,766 European children. Of the 283 schools, 130 are purely Vernacular, and 153 Anglo-Vernacular, or English Schools. Of the total number of scholars, 28,876 are in attendance in the Anglo-Vernacular and 17,548 in the Vernacular Schools; 1,730 belong to the High, 11,325 to the Middle, and 33,369 to the Primary stage of instruction.

The Primary Schools for boys increased from 1,677 to 1,726, or by 49 schools; but the number of scholars fell by 1,514, or from 84,763 to 83,249. The cause of this decrease has been already noticed. The new schools were mostly Zamindari Schools, and were themselves affected by the sickness which caused the general decline. The Primary Schools for girls remained, as in the previous year, 299, with an increase of 482 scholars, or from 8,530 to 9,012. There are, thus, altogether 2,025 schools for Primary education, attended by 92,261 scholars. As the Primary classes of the Secondary Schools contain 33,369 scholars, the total number receiving Primary instruction in public schools is 125,630, of whom 24,477 belong to the Upper Primary and 101,153 to the Lower Primary stage.

The alembic of examination tests is thus exposed :—

In the Degree Examinations of the Punjab University, there is a slight increase in the number of passes, except in the Master of Oriental Learning Examination. In the Intermediate Examination, the number of successes is smaller, but the percentage of passes, compared with the number of candidates, namely, 57, is not unfavourable. The results for the Entrance Examination, with only 38 per cent. of successes, against 46 in the previous year, are rather disappointing, and are attributed, with apparent good reason, to the extreme difficulty of one of the examination papers. There is a slight decrease in the passes by the Middle School and Middle Standard Examinations; but the percentages of success were high. All the Primary Examinations show an advance on the previous year; and the increase on the side of the Girls' Schools is especially satisfactory. A few candidates from the Punjab still appear in the Calcutta University Examination; but this is a rapidly decreasing number. This year the higher examinations are blank, and only 58 passes are recorded for Entrance, against 92 in the previous year. Of the successes 16 out of 18 candidates were from the European Schools, which is an excellent result. During the year, 10 out of 26 candidates passed by the Final Standard for European Schools.

Assurance is proffered that emphasis will, in future, be put on the necessity of efforts to cultivate the morals and manners, as well as the intellects, of Punjab scholars. Let us hope that the emphasis will prove drastic in operation on its moral side. That it was time for the application of some remedy is shown in the following extract :—

The fault of trying to copy during examination is frequently detected ; but this will disappear as self-reliance is begotten, and promptitude on the part of the teachers to detect such misbehaviour. A few cases of misrepresentation of age were brought to light, and severely punished. The Inspector of the Delhi Circle refers to a case of falsification of registers, &c., in an Aided School, which, he remarks, was " all the more deplorable, as it was perpetrated by the Manager himself, with the connivance of the teachers, and with the knowledge of every boy in the school."

Physical regeneration is henceforth to keep pace with moral, and to that end Punjabi boys are being inoculated with a *shok* for cricket ; an increase to the number of gymnastic drill sergeants employed has been sanctioned ; and Academic " Courses " of Athletics have been arranged for.

2,021 out of the 2,328 public schools of the Punjab are locally self-governed by District Boards. We rejoice to hear that they are " beginning " to give attention to the schools in their charge, albeit that their interest in them " is generally measured by the concern manifested in the same direction by the Deputy Commissioners." District Boards have their uses, however as will be seen from the following extract :—

Municipal Boards are of a different type, and have generally assumed the actual management of the schools under their jurisdiction. Some are well managed ; the majority are fairly so ; but a considerable number are neglected. Here, however, the District authorities again step in, assume the charge as in the case of District Board Schools, and save the institutions from collapse.

" We note that Municipal Boards, as a rule are content to let the measure of their additional income from fees be the limit of their efforts to extend education.

We are told that the chief efforts of the Department are now being directed towards the extension of its influence to Indigenous and other Private Schools, to the encouragement of Zamindari and Industrial Schools, and to the fostering of what at present exists as the rudiments merely of female education in the Province. For the provision of more certificated teachers, a new Normal School is about to be opened in Mooltan ; and, for the better culture of the scholars of all classes, the Training Institutions are receiving more attention, and moral and physical instruction is everywhere emphasized. The courses of study were revised, to some extent, during the past year ; and much is being done to improve and complete the school text-books.

Annual Report on the Government Cinchona Plantation and Factory in Bengal for the year 1890-91,

THE total crop harvested was 293,972 lbs. of dry bark. The total budget allotment was Rs. 74,020, out of which a saving of Rs. 15,390-9-5 was effected.

There was a profit on the year's working of Rs. 17,040-2-1; all the manufacturing operations of the year were conducted by the fusel-oil process, another year's experience of the excellence of which has begotten in Dr. King and his staff increased confidence in its simplicity and efficiency. Dr. King has a quarrel with Lokil Sluff. In his own words:—

The largeness of the amount both of raw material and of manufactured product in stock shows that the producing capacity of the Plantation and Factory is greater than the demand for their products. This is a great economic disadvantage, for the best possible results of any producing agency are not obtainable unless it be worked up to its full power. And could the full production of the cinchona estate be taken off, it would be possible still further to reduce the price both of quinine and febrifuge. And I have little doubt that, were all charitable dispensaries to supply themselves with Government quinine, the fullest possible outturn of the Factory and Plantation might be absorbed. But the majority of these dispensaries are now administered by local boards and municipalities, and these bodies appear to prefer buying their drugs to supplying themselves with quinine from other sources. This practice appears still more unfortunate when it is viewed in the light of the fact, that the Government quinine has been shown by repeated analysis to be of the highest possible purity, which is a good deal more than can be said of much of the foreign quinine that is sold in Calcutta.

From the beginning of the year that has now been entered upon, the price of febrifuge has been reduced to Government officers to Rs. 10 per pound and the price of quinine to Rs. 16. When the cinchona enterprise was initiated by Government twenty-nine years ago, the price of quinine stood at a good many rupees per ounce, and the repeatedly avowed intention of Government was to reduce its price to one rupee per ounce. That intention has now been fulfilled.

We agree with the Superintendent of Cinchona Cultivation in Bengal that this is very legitimately matter for congratulation.

Report on the Revenue Administration of the Province of Oudh for the revenue year 1889-90.

IT appears that in the North-Western Provinces and Oudh the rainfall of 1889 was (as usual) not what it ought to have been, and the year consequently not up to the normal standard of prosperity. For all that, the land revenue was paid in full. We are told in the Resolution accompanying this Report that—

The system of distributing lists showing the exact demand due from each co-sharer of villages held by proprietary communities, which has been introduced in the Hardoi district, appears to have been continued with much advantage. In a recent correspondence with the Board, a somewhat similar plan has been sanctioned in the North-

Western Provinces for those estates in which the practice of separate collection from the co-parceners of an estate is actually customary. It is understood, however, that the practice in Hardoi is only intended to explain to the co-parceners the amount of their respective shares in the revenue of the joint estate, and that the collections are made as before through the lambardárs. Upon this understanding the preparation of a yearly demand statement is clearly the duty of the patwári, and, as the Board remark, he should have no difficulty in preparing it, seeing that his duties have been materially lightened in another direction, and that he has the advantage of a carefully-corrected record as the basis of his detail.

Latter day inoculations of the Patwári with omniscience are year by year tending more and more to resolve that once useful creature into a Miniature Etcetera Department.

The subject of most interest in North-Western Provinces and Oudh district reports is gubernatorially held to be the working of the Rent Act of 1886, and the action taken under it by landlords for the removal of tenants, and enhancements of rent, regarding which we are told :—

So far as the statistics go, it is clear that action under it is still extremely limited in extent ; that the provisions of the law are now very widely known and understood ; and that though its limitations on the landlord's power both of eviction and enhancement are undoubtedly exceeded, these breaches are not of frequent occurrence. Though the notices of ejectment were nearly half as numerous again as in 1889, the actual number of evictions under the Act were not more than the infinitesimal proportion of 0·05 per cent. upon the number of recorded holdings. It is true that, according to the inquiries in some districts, a good many tenants are reported to have been removed from their possessions otherwise than by due process of law. In Lucknow the number is given as 1,696 ; in Bara Banki as 2,286 ; in Bahraich as 44 ; in Hardoi illegal evictions are said to be found only " here and there ; " the Fyzabad Deputy Commissioner reports that they are " much more numerous " than the evictions by formal process ; in Sultanpur " only a moderate number " of such evictions could be found.

The Local Government holds that it is, *in some measure*, evidence of good relations between landlords and tenants that the Money Order system of paying land revenue kists is a failure. Granted that the few figures quoted in support of this idea show that the system is less resorted to now than it was initially, but should not post office irregularities and a too straitlaced adherence to red tape be held also, *in some measure*, responsible for the falling off ? It may well be that better relations between landlord and tenant than those that prevailed formerly *do* now obtain ; but post office laches are no evidence of this.

Recommendation of counterfoil receipt books for rent payments again gets official imprimatur, and surprise seems to be felt at the lack of appreciation this reformatory idea has met with in the past. Possibly all landlords don't see the fun of having their rent accounts placed beyond reach of muddle. Management of State properties and sequestered estates during

the year of review is pronounced to have been good on the whole, and the share taken in that management by District officers to have been generally careful and satisfactory. "But it is by no means creditable to those concerned, that three revenue-paying estates in Bara Banki and one in Bahraich (a resumed waste land grant leased for five years at no less a sum than Rs. 800 per annum) should have been hitherto, by oversight, omitted from the annual returns." Could not half-a-dozen patwáris be detailed for preparation of half-yearly statements on this item of account?

Report on the Land Revenue Administration of the Lower Provinces for the official year 1890-91.

WITH all due respect be it said, Sir Charles Elliott's restless energy reminds us of the nursery-famed old woman who lived in her shoe, and who, because she had so many bantlings under her care, that she did not know what to do with them, incontinently took to beating them all round. Each fresh Resolution issuing from his Secretariat is instinct with some new haste for upheaval and reconstruction. We have to-day before us one of them, dissecting and glueing together again on more approved principles: The Board of Revenue's system of Land Administration in Bengal and Behar. A standard of 99 per cent. of collections is prescribed in it for permanently-settled estates by His Honour—and we hope he may get it, and the other similar exorbitances which he demands of collectors, in lieu of the more commensurate requisitions of his predecessors in office.

"The Lieutenant-Governor," we are informed, "has also recently undertaken a revision of the number, dates, and amounts of the instalments in which land revenue is paid, with a view to making them more convenient to the landed interests and the treasury. This measure is not yet matured, but His Honour trusts by these changes to attain a higher rate of collections, both current and arrear, and with greater facility than has ever before been achieved." *Fortes non vixere ante Agamemnon.* The fourfold classification of estates, twenty years ago, by Sir George Campbell is adjudged effete, and condemned to "modification." Class IV of rayatwaree estates is abolished: the future classification of revenue-paying estates is to be—

- I.—Permanently-settled estates.
- II.—Temporarily-settled estates, *viz* :—
 - (a) those settled for periods with the proprietors;
 - (b) private estates leased to farmers for periods;
 - (c) Government estates leased to farmers for periods.
- III.—Estates held direct by Government, *viz*. :—
 - (a) those managed for proprietors;
 - (b) those owned by Government as proprietor.

Discoursing of the sunset sale law, the Lieutenant-Governor regrets a tendency of defaults to increase, and of actual sales to diminish. He is inclined to think that the policy of leniency to Zemindars, in exempting their estates from sales for default, has been carried too far, and he has suggested to the Board of Revenue the adoption of a complicated "Register" of his as a means of compressing its bowels of compassion. In para. 24 of the Resolution we get common sense and engineering incapacity arrayed against traditions of humanity, and traditions of paternal Government, wherewith John Company Bahadur made his rule acceptable to an alien people. "Nous avons changé tout cela" :—

24. In the Government Resolution on last year's report the Board were desired to give special attention to the subject of embankments in their Report for 1890-91. A succinct account has, therefore, been furnished of each of the principal embankments. In accordance with the policy which has been decided on by Government, after mature deliberation, with a view to prevent the rivers from becoming as it were high level canals, always liable to be breached and carry havoc far and wide, a portion of the embankment on the right bank of the Damoodar is being removed, portions of it being left, in lengths of 150 feet each, to form platforms of refuge. Proposals have also been made to allow the Damoodar floods to find more rapid exit down the Rupnarain. The removal of the embankments of the Argowal circuit in Midnapore, with a view to raising the level of the tract within the embankment, is also under consideration. The plan suggested by the engineers, of allowing a river to spill gently over a wide area, rather than to attempt the impossibility of continuing to confine it for ever within banks which must be constantly raised as the bed is raised by the silt, commends itself to common sense, but it is not so readily accepted by the people, whose crops are thus exposed for the time to injury. The question of providing more sluices for the outlet of flood-waters in the embankments constructed in the 24-Pergunnahs to protect the country from tidal inundation is one that will have the immediate attention of Government, when the people interested are prepared to deposit the cost of the works. Action will be taken in the ensuing cold weather to remove, under the Embankment Act, a considerable length of the northern embankment of the Goomti in Tioperah.

A'propos of inspections by Magistrate-collectors of their offices, in para. 34 "it is presumed that the Board have satisfied themselves of the completeness of these inspections from the reports submitted to the Commissioner." Members of the Board of Revenue are, *coram populo*, wigged for not going sufficiently on tour. These are gratuitous impertinences. Every inch a Satrap though he be, Sir Charles Elliott ought to know that high official rank *oblige*, as well as does *noblesse*.

Notes on the Administration of the Registration Department in Bengal for the year 1890-91.

IN a Supplementary "Note," interleaved amid his Statistical "Statements," Mr. Holmwood advises as follows :—

There has been a steady normal increase in all deeds connected with

immoveable property, which are compulsorily registrable, except in instruments of lease other than perpetual, where there is a falling off of nearly 9,000. The increase may be regarded as normal, the decrease is due to a ruling of Wilson, J., in the case of *Topa Bibi v. Ashanulla Sardar*, I. L. R., XVI Cal., 509, which is reported to have been widely circulated in Noakhally, Tipperah and the Eastern Districts. This judgment only declares, what was all along clearly the law, *viz.*, that the Transfer of Property Act cannot in itself be said to have created new classes of compulsory registrations; but since its passing, the omission to register documents of the kinds mentioned in section 18 of the Registration Act may lead to much more serious results than before. The saving instinct of the Bengali, however, at once caught at the dictum that the registration of deeds of sale of under Rs. 100 in value was not compulsory unless they were the only evidence of the transaction, and in spite of Mr. Justice Wilson's warning, they seem to be ready to trust to the chapter of accidents and the ease with which collateral evidence can be procured in the Mofussil to prove their leases.

The total number of registrations increased slightly during the year of report, although the number of estates and tenures transferred by registered deeds of sale diminished. Of the purchasers 94 per cent. were mahajans, traders, or money-lenders; 15.6 per cent. zemindars; 27.9 per cent. intermediate tenure-holders; 24.9 per cent. ryots; 22.2 per cent. others not specified.

The working of Act I (B. C.) of 1876 for the voluntary registration of Mahomedan marriages and divorces has received the attention it merits. With respect to it we note that—

Rungpore has suddenly shot up to first place with an increase of over 30 per cent., as against a decrease of nearly 18 per cent. last year. The District Registrar in his Report argues against these figures that the work is decreasing and the Act useless, unless it be made compulsory. He says: "As our rural registration offices become more appreciated by the public, business before the Kazis may be expected to decline." In this he rather misapprehends the object and scope of the Act. It is not desired that Mahomedan Marriage Registrars and Kazis should register kabinnamahs and so interfere with Rural Sub-Registrars. The two have nothing to do with each other, though many Mahomedans prefer to register a kabinnamah before a Rural Sub-Registrar instead of being married before a Registrar, and never go to the Kazi at all. No reasons are assigned for the increase in all ceremonies which is said to be casual.

Mr. Holmwood has a poor opinion of Arabic scholarship as a qualification for efficient registrarship, and gives chapter and verse from District results in support of his opinion. What Moulvie Syud Mahamad, late officiating 2nd Inspector, has to say in this connection, is worth quoting. Of Munshigunge he says:—

"The Mahomedan Marriage Registrar is not a passed student of any Madrassah, but he is sufficiently educated to perform his duties successfully and correctly. I believe *he has the largest income in the district*, and it is owing to his personal influence and tact that he has secured a good income for himself. He is the spiritual guide of a large number of Musalman cultivators in the sub-division. I think men of

this class should be encouraged to come forward. They can easily popularize the Act and make a good livelihood for themselves. If they are otherwise a little deficient. I think it should be overlooked in their selection for this post."

The italics are ours. Moulvie Syud Mahamad found that in the Dacca district an illegal cess was imposed by zemindars, which cess they farmed out to village Mollahs, with the result that Mahomedan Marriage Registrars and Kāzis were intimidated and "virtually barred from entering the villages to solemnize marriages." The moral drawn is that personal influence is far more important than a profound knowledge of Arabic.

Report on the Administration of the Salt Department for the year 1890-91.

ACCEPTING the population figures of the recent census as approximately correct, the average annual consumption of salt per head in Bengal would be 9 lbs. 13½ oz. Sir John Strachey, in his work on the Finances and Public Works of India, estimates it at 12 lbs. per head. A summary average for the whole of the Indian continent is a misdirection. Mr. Risley, bearing in mind that the amount consumed varies greatly in different parts of the country, according to the habits of the people and their standard of living, proffers the following statistics and remarks:—

	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.
Area under Northern India					
Salt Department ...	9'37	8'60	8'50	8'59	...
Area under Bombay Salt					
Department ...	10'54	11'59	10'96	...	...
Trans-Indus Territories of					
Punjab ...	...	19'67	23'38	20'86	...
Orissa and Tributary Mehals	11'59	11'36	10'26	11'20	10'42
Madras Presidency	16'28	16'57	17'80	16'84	...

In the prosperous districts of Bengal Proper, where the staple food of the people is rice, the consumption is believed to be not less than 12 lbs. per head; in Behar it is about 9 lbs.; in Chota Nagpore probably somewhat less; in Orissa, including the Tributary States, it usually exceeds 11 lbs. According to the Board's statement, quoted above, the consumption per head in the salt-producing tracts along the coast is higher than in the non-saliferous districts of the interior; but this comparison must not be pressed too closely, for the figures cannot pretend to any exactitude in representing the amount actually consumed in the non-saliferous area, and the results of personal inspections made by the Lieutenant-Governor on tour, lead him to doubt whether the fact that salt was despatched under rowannahs into the saliferous tracts can be taken as positive proof that it was eventually consumed within those tracts.

The supply of salt to the Bengal districts is distributed chiefly from the ports of Calcutta and Chittagong. Orissa gets its supply by local manufacture and by importation from Ganjam and Calcutta. In the Behar districts salt is obtained partly from the North-Western Provinces, while in Chittagong a small quantity of salt is clandestinely

brought in from Arracan, where the rate of duty is only Re. 1 per maund.

The net export increased in 1890-91, because, we are told, the high price of Liverpool salt in the preceding year had reduced it to an abnormal degree; but, on the whole, improvements in railway communication and reductions of freight are enabling Rajpootana and Punjab salts to compete more successfully with the imported article, and to drive its limit of consumption nearer the seaboard. Mr. Risley considers this a subject for congratulation, "since salt is an article which India ought to manufacture for itself, and not to import."

The following paragraphs indicate also subject for congratulation :—

8. The total number of seizures of contraband salt decreased from 977 in 1889-90 to 715 in the past year. In Midnapore, however, the number rose from 109 to 196, but the quantity of salt attached fell from 35 maunds to 24 maunds. The proportion of seizures to unsuccessful searches in Midnapore shows a decided improvement over that of last year. The number of cases of illicit manufacture rose from 213 in 1889-90 to 238 during the year under review: of the 238 persons put on trial, 209 were convicted. The increase in the number of seizures and convictions is attributed to the better supervision of the police. In the 24-Pergunnahs the number of seizures was 216 against 239 in the previous year, and the quantity of salt attached was 41-14-6 maunds against 589-19-4 maunds in the previous year. There was not a single case of unsuccessful search in this district. The proportion of seizures to unsuccessful searches in Backergunge was 38 to 14. The result though better than that of 1889-90, when the number of unsuccessful searches exceeded the number of seizures, is still very unsatisfactory. In Balasore the proportion of seizures to unsuccessful searches was 185 to 71. Having regard to the fact that an additional preventive establishment has been sanctioned for the suppression of the smuggling of salt in the district, a larger proportion of successful searches might have been expected. The number of cases instituted for offences against the Salt Laws was 987 against 1,490 in 1889-90. The number of persons apprehended also decreased from 1,529 to 1,008. The amounts realized as fines and disbursed as rewards were Rs. 7,995 and Rs. 5,873 against Rs. 11,339 and Rs. 7,499 respectively in the previous year.

9. The number of cases for offences against the Salt Laws in Orissa decreased from 4,189 to 2,087, and of persons infringing the laws from 1,041 to 397. The Commissioner of Salt Revenue, Madras, attributes this to the defective state of the law and to the orders of the Government of Bengal not to interfere with trivial cases of manufacture for domestic consumption. The Board, however, do not share the Commissioner's view, and are of opinion that the decrease was not unsatisfactory from one point of view, as it would indicate that there was less of harassment and annoyance to the people. It is noticed by the Board that eight infirm persons, women and children, were apprehended, and that 96 persons were apprehended for possessing less than one seer of contraband salt or less than five seers of salt earth, against 28 and 153 in the previous year.

Monograph on Fibrous Manufactures in the Punjab. By W. H. GEE, B.C.S. District Judge, Dera Ghazi Khan. 1889-90.

WE glean from the Monograph of the District Judge of Dera Ghazi Khan that—

The actual uses to which fibres are put in the Punjab are confined chiefly to the manufacture by the zamíndárs themselves of a variety of agricultural and domestic articles, which rarely command any extensive sale among outsiders.

The only exceptions to this are the weaving of a coarse tāt from san, which is made up into gunny-bags, and the application of a few fibres, principally san in its manufactured state, to paper-making. The trade in dwarf palm from the North-West Frontier seems to be developing, and is certainly the most promising of these industries. The trade in bamboo from the Himalayan districts, though it is widely distributed over the plain districts, is not very extensive, probably owing to a limit in the supply.

Subject to these exceptions there is little external trade in fibres. In each district the zamíndárs utilize whatever plants may grow abundantly for purposes of making ropes of all kinds, mats, chicks, nets, baskets, and the like; if the local supply be insufficient, a certain amount of raw material and perhaps of manufactured articles may be imported from the neighbouring districts, but the production of these articles can hardly be dignified by the name of a trade. In no case do any class of people obtain a living by it. Among those castes which are more especially employed in fibrous manufactures—such as Jinwárs, Labánás and Musallís—no worker can support himself solely on his earnings: as a rule he works for a part of the year when raw material is abundant; for the rest he is an agriculturalist. A large number of zamíndárs employ their spare time in the winter months by extracting the fibres from the munj, san, sankokra and other plants, and twisting them into twine, well ropes, cattle ropes, etc., but they do not work for the market.

The detail of Mr. Gee's work, in which he has been assisted by the reports of District Officers, appears to have been executed with discriminating industry.

We note that there are two factories in Delhi for making bán, principally of munj brought from the Reware, and san grown locally; they are open all the year round, and their gross outturn is two maunds a day.

Two forms of wheels for twisting fibres are in use in Lahore, called 'vatna' and 'deva'; the principle of both is the same, and is like that of the 'bhirni' of Dera Ismail Khan: the fibres are fastened at one end to the several arms of a wooden framework, to which a circular motion is imparted by one man; a second man supplies fresh fibre when the first is all twisted up. By the use of these machines the outturn can be increased four-fold, and the twine is more evenly twisted and firmer. Its inferior strength is the cause of the superior popularity of hand-made rope, but no remedy has at present been suggested for this defect. In Montgomery the twisting is done with a dhairni, a board perforated with holes worked in the same way as the others.

Another form of the charkh is a wooden circular bit of board with holes in it: rough bits of stick are passed through them, the knot on the stick preventing them from slipping out; the fibres or the strands are attached to these bits of stick, and the board is fixed between two

uprights and made to revolve, a grooved piece of wood (kalbut) being inserted between the charkh and the other ends of the fibres to secure a uniform twist. The instrument is generally used by the rassibat for the larger ropes.

Here is a hint for globe-trotting questers of curios :—

The use of grass shoes in the hills is universal, and their manufacture deserves some notice. In Kulu, shoes are made from bhang and are called 'pula.' To form the sole the fibre is worked into thick strings, which are compactly woven together; for the upper part a fine twine is made from the fibre, which is carefully knitted by hand with a needle. A pair of shoes ornamented with coloured string and goat's hair thread fetch as much as 4 annas; plain, they sell at 2 annas a pair. Hemp shoes last longer than shoes made of grass such as 'bagar,' and are more generally worn, though they are said to be less safe in difficult places. Sometimes nettle fibre is used for the sole. Rice straw is used in Hazára, but such shoes wear very quickly and only last four or five days.

Along the north-west frontier dwarf palm is the material used for the sandal (chapli or saplai). Afridis, Mohmands, Swatis and Bonerwals all wear them. The cellular portion of the leaves is first removed by beating, and for twisting the fibres an instrument called a speta is used, a curved and pointed piece of iron with a toothed edge. If sold the price is 3 pies per pair, but each individual generally makes his own. Superior ones worked with silk are made for women,—price 4 annas a pair,—and Hindus occasionally use these when going on pilgrimages, when leather shoes are forbidden. The annual outturn of mazri shoes in Kohát is Rs. 20,000.

People interested in Prison discipline and economy will perhaps thank us for the following excerpt from an appendix to Mr. Gee's Report :—

The manufacture of country paper has, for many years past, been extensively carried on in the Jails of the Punjab. The materials used in its production are abundant and easily procurable in almost every district of the Province, and the various processes to which the materials are subjected are of the simplest character. Paper-making has thus afforded us the means of employing on suitable work a large number of our able-bodied prisoners sentenced to rigorous imprisonment—a matter of no little importance—inasmuch as aimless labour (the tread-mill, crank, &c.) has never been allowed in our Jails, and it is only very recently that the employment of prisoners extramurally on large public works has been introduced.

Various fibres have been used in the manufacture of native paper. The chief are the following :—The bark of the hemp plant (*Orotolaria juncea*); flax fibre; the leaves of munj grass (*Saccharum munja*); the bark of the madár plant (*Calotropis gigantea*); date tree leaves (*Phoenix sylvestris*); plantain leaves (*Musa paradisiaca*); the root of the dhák tree (*Butea frondosa*); leaves of the aloe plant, the inner bark of various species of *Daphne* and *Desmodium*, &c.

But the most commonly used substance is hemp bark. Indeed it may be said that all the others have been only tried experimentally in particular Jails, and that the disadvantages attending their use have led to their being abandoned in favour of hemp

CRITICAL NOTICES.

The Indian Church Quarterly Review. Edited by the REV. H. J. SPENCE GRAY, M.A. October 1891.

IN 1869 Mr. Matthew Arnold, lecturing on *Culture and Anarchy* at Oxford, warned his auditory against the mechanical character and tendencies of that sort of culture "which civilization tends to take everywhere." Faith in machinery is, he declared, the besetting danger of English people: "often in machinery most absurdly disproportioned to the end which this machinery, if it is to do any good at all, is to serve; but always in machinery, as if it had a value in and for itself. What is freedom, but machinery? What is population, but machinery? What is coal, but machinery? What are railroads, but machinery? What is wealth, but machinery? What are even religious organizations, but machinery?" There were not wanting in 1869 scoffers at such an unaccustomed deliverance, who could see in it nothing but a jejune Jeremiad, and who did not fail to say so. Since that time the cult of æstheticism has done somewhat to rescue the Oxford Jeremiah's countrymen and countrywomen from imminence of that "machine tickling aphid" condition of materialistic nirvana predicted for them by the author of *Erewhon*; but, nevertheless, a mechanical character still dominates British concepts of civilization. Mr. Roebuck, Mr. Lowe, Mr. John Bright—all Matthew Arnold's pet aversions in the way of apostles of Philistinism—are dead. But teachers galore of the *aphnia* remain with us still, and still indoctrinate a responsive British public with their notions as to the superior beauties and uses of mechanism. The Rev. Morris Fuller, B.D., F.S.A., is an Anglo-Indian professor of this creed, who has contributed to *The Indian Church Quarterly Review* an article *De Metropolitanis*, in which the paramount necessity of archiepiscopal machinery for this country is insisted on and its need of more Bishops insistently set forth. Mr. Fuller lays stress, in support of his argument, on a quotation from the writings of a Dr. Neale, which, since it resolves the pith of that argument into a question of precedence, and thus chimes in with our own views on the subject, we cannot do better than reproduce here:—

It may of course be asked, 'What is there in a name?' A Bishop with the authority of a Metropolitan does just as well as if he had an appellation of finer sound. Now most certainly we place not the least value on a title which is a mere title, or a decoration which is a mere



decoration. Nothing seems more contemptible to us than the privileges, as some of the Spanish Churches have, where the Bishop or Dean is treated as a Cardinal, the Canons as Bishops; nothing more silly than when prelates of this or that little island call themselves exarchs of this or that See. But this is a very different question. We profess to follow the early Church in our organization: we allow in ourselves a very comfortable contempt towards the darkness of the eighth or ninth centuries: but here we are doing what the prelates of those very ages knew to be contrary to early discipline. And besides these, there are two tangible reasons for the re-adoption of the title of Archbishops. In the first place, talk and reason as you will, you will not get people generally to see that the Metropolitan of Calcutta and Sydney is on a level with York or Dublin, unless he has the same title. People will naturally say, "Oh, but he is only a Bishop." And in one sense he is only a Bishop; for we do not for a moment imagine that the Bishop of Capetown (*quâ* Metropolitan) for example, takes, *as he ought*, precedence of the Bishop of London. We know very well that in the Colonies there is a very great difference between the Metropolitan and his Suffragans; that the newspapers always speak of him by his peculiar title: and we imagine he takes a very different precedence from theirs. But what we desire is, that the rank freely given in the Colony, may be freely allowed at Home. Then though the Church of England cannot in these evil days look for more than fair play as regards other communions, at all events she ought to have *that*: and it is not fair with regard to Rome that, while *she* appoints an Archbishop of Sydney, we should only have a Bishop.

The article by the Rev. Father Benson, entitled *Impressions of India*, deals with that Missionary's propagandist views. He believes, we note in that connection, that the day of victory is approaching, that Christian principles are leavening Hindu society. That is not, we are afraid, a conclusion to which impartial observers can incline. Alas, 'tis now as ever a true proverb that a man can eat no more than he can hold. As to another matter Mr. Benson writes:—

The English congregations are not as liberal as they ought to be in sustaining even the current expenses of their own Church. There are of course exceptions. Doubtless this is occasioned in part by the idea that Government will do everything. But one must confess that the *evangelistic* interest shown by them towards the heathen among whom they dwell is lamentably small. This apathy of the English residents towards the Missionary cause is a serious hindrance to progress. It curdles the spiritual life of the country. It not only tends to make the Chaplains drift into channels of ministerial life distinct from that of the Missionary, but it creates an immense difficulty for the Missionaries. The native feels that the English are content to leave them to themselves, and they cannot suppose that we as a nation or as a Church can have any real desire to see them brought to the truth.

The indictment may be correct enough from a pulpit point of regard; but it seems to us that the laity censured for lukewarmness may be justified too of their unbelief that the lukewarm phylacteries of latter day Protestantism are suited to the genius and passionate religious impulses of sensuous, impressionable eastern peoples.

A paper by the local Secretary to the C.M.S. on *Punjab Frontier Missions* will be read with interest. Mr. Lias continues his history of Old Catholicism, the British of Bombay his review of liturgies of the Anglican communion.

Theosophical Christianity. An Address by L.S. Second Edition, revised and enlarged. Calcutta : Thacker, Spink & Co. 1891.

THIS lecture has the merit of suggestiveness, whether considered with regard to the intrinsic character of nineteenth century civilization, before which its gauntlet is confidently thrown down ; or, relatively, to its essay at enlisting a combination of Jesus Christ's teachings and latter day science *à la* Herbert Spencer, in the Theosophist line of battle. L. S.'s argument is a dexterous and not easily separable intertwining of destructive and constructive criticism, the former largely preponderating. It appeals to at any rate middle class* British sympathies in its advocacy of a compromise between the aggressiveness of modern evolutionary science and the would-be placid security of repose on more or less archaically devised faiths. Theosophy is put forward as a convenient bridge between the two discordants, as a high and dry doctrinal overway, artistic, tile-paved with reverentism, and withal resting on a *quasi*-scientific basis ; the implication being that theosophic intuition is the equivalent of the theological faiths of Churches. In this connection, L. S. postulates that theosophy, being the wisdom of the Divine, must be considered a superior truth to knowledge. Is such begging of the question a really appreciable advance on Pilate's querulous question—"What is Truth?"

The destructive criticism relied on to support L. S.'s scheme of Theosophical Christianity is based, on the one hand, on Darwinian and Lamarckian concepts of evolution, on the other, on L. S.'s iconoclastic treatment of Old Testament prophecy : *e.g.* the two extracts that follows :—

It has been an observation of many years' standing, that the cranial capacity of the average civilized man surpasses that of the non-Aryan savage by a difference of no less than 68 cubic inches ; yet there is no physical distinction, worthy of the name, between the corporeal formation of the one and the other. The conclusion drawn from this apparently strange fact is this : that the human body, as such, having reached its full development, all the evolutionary progress is henceforth spent upon the progress of his mental capacities. In a similar manner it is now expected that the mental capacities of man have reached their climax of evolution, and that the time has come for the development of the direct mode of acquiring knowledge—of the intuitive mode. Hence the irrepressible onward movement of

* Mathew Arnold would have written Philistian.

Theosophy, in the most enlightened centres of Europe and America, all the defects and drawbacks of the Theosophical organisation notwithstanding. Verily, I tell you, gentlemen, Theosophy is in the air; in the spiritual atmosphere around us. Men have ceased to be satisfied with what Natural Philosophy can offer them, because they intuitively feel that better times are coming.

How much of the true and of the false there may be naturally interwoven in the mind of a man subject to prophecy or inspiration shall best be seen, when we remember that the condition of such a man greatly resembles the condition of a person habitually subjected to the influence of the hypnotic suggestions. "Hypnotised subjects," writes Dr. Luys, "by the very fact that they are under the influence of a quite special mental state, are apt to present this strange phenomenon, that through the automatic action of the cells of their brains, they will produce truly autogenetic suggestions. At one time they will tell you that they have met with some extraordinary experience, have received certain strange proposals, are acquainted with persons of high social standing; or else they will accuse some acquaintance of their circle of having spread abroad slander, of robbing, or seeking to wrong them. Still all these denunciations are made with a men of absolute sincerity, and if one did not know such subjects from their peculiar psychological point of view, one might really be tempted to lend faith to their statements."

To some sceptically minded people it will appear that the "development" of the intuitive mode of acquiring knowledge propounded in our first quotation is, when stripped of supererogatory figures of speech, progression by means of a retrograde movement.

L. S., while asserting that the teachings of his cult lie in a nutshell, is willing to admit that "it is not an easy thing to lay hold of the right shell." He claims, however, for Theosophy, that it is so grandly (if somewhat vaguely) hyper-catholic, as "to hold the most general principles in matters spiritual; so that all revealed religions worthy of the name are supposed to be but so many diverse expressions of that great generalization." For all that, the whole tone of the lecture is one of intolerance to Christianity as at present expounded in Christian churches and chapels: we may say here, that the title chosen for it is a misleading one in our opinion. It boots not to pursue in detail the sort of argument adduced with a view to the supersession of Christian doctrine by occultism. The lecturer's concluding words epitomize the conclusions arrived at perspicuously enough for our present purpose. We quote them:—

Theosophy looks upon all religions as certain stages in the spiritual development of men. Judaism prophecy, and sacrifices, and Pauline Christianity with its doctrine of vicarious atonement, although spoken of in disparagement, when compared with the higher standard of spirituality, have no less had their time, and their usefulness. And inasmuch as humanity does not collectively advance, we need not be surprised to find that there are still men on earth, but a few thousands years behind in the course of evolution, to whom the former cult appears to be the highest imaginable, the uttermost attainable. To condemn them,

would be to condemn Evolution. Christianity itself, I mean orthodox Pauline Christianity, has, as we have seen, no less to go through that universal mill that spares neither men nor systems—the mill of evolution. Meanwhile let us all remember, that the time of searching in the Scriptures is past. St. Paul who wrote many epistles, told us, that “the letter killeth”. Let us therefore not search in the letter for what can only be found within us—the spirit of truth, that shall guide us unto all truth, and shall, according to the noble words of Christ, make us free—free from all the impediments that stand in the way of our moral and spiritual development.

One more quotation, and we take leave of this brochure, commending perusal of it to such of our readers as are curious about theosophic idiosyncracies. The quotation has reference to the New Testament episode of Nicodemus, and the Lord’s hard saying that he must be born again :—

We see here once more, a doctrine of ancient Theosophy taught by Christ to the teachers of Israel. St. Paul, who could not leave any of his master’s cherished doctrines in the original form, but had to pass it first through the sieve of his own peculiarly constituted mind—St. Paul converts the doctrine of the New Birth, into the doctrine of Resurrection by Christ and with Christ. It is Theosophy put upside down.

A Common Alphabet for the different Languages of India : Being part of the Introduction to his English-Telugu Dictionary. By P. SANKARANARAYANA, M.A., Tutor to their Highnesses the Princes of Cochin, Ernacolam, Cochin. Madras : K. R. Press. 1891.

THE writer of this pamphlet has set himself the task of reforming the present fashion of English as she is spelt, and “as she is spoke,” beyond reach of the modulating influences of *Bow Bells*. We wish him all the success his doughty kicking against the pricks deserves.

“I will none of such a reasonable language !” These words were uttered (see page 2) by a culture-loving prince of Cochin, disgusted, at the outset of his hunt after a foreign tongue, with dissimilarities between the pronunciation of English and Telugu vowels ; and ever afterwards it stood as a *quasi*-juridical verdict by which the accomplished prince abided throughout the length and breadth of his scholarly life. His Highness’s demi-royal demurrer was, it appears, pregnant with illimitable meanings ; one of which our phonetic reformer construes into a proof of the possession of genius on the prince’s part. “It is genius alone,” we are instructed, “that resists the prevailing teaching in any matter, on account of anything in it that may be arbitrary and short of strict reason.” The type of genius affected by Mr. Sankaranarayana takes upon its stalwart shoulders the task of educating the Madras Presidency up to enjoyment of phonetic freedom and orthoëpic right reason. Let “benighted” Madras be duly thankful for the new dispensation and

dutifully agree with its prophet in the belief that no argument is needed to prove that "Professor Bain's treatment of the English alphabet will disclose to any Hindu reader a great confusion regarding simple articulate sounds ;" likewise that all received English authorities on English pronunciation are blind leaders of the blind. Even Max Müller, although not an Englishman does not satisfy Mr. Sankaranarayana's exacting palate. The veteran student of words and sounds is called to order for his transliteration of Oriental words in a "Missionary alphabet," good-naturedly adapted, as far as to wholesale Missionary operations and intelligences. In short, the pamphlet suggestion is that there can be no hope of transliteral grace for any of us, save in acceptance of the gospels adumbrated by Mr. Sankaranarayana.

We may, perhaps, be allowed to observe that English is not an Indian dialect, and that no system of transliteration, no hocus-pocus with alphabets, can avail to convert it into one. Nor does it appear to us desirable that it should be so converted. If an Indian student is anxious to acquire a colloquial command of the English language, he must conform in his pupilage to English practice and the schooling of English teachers ; as the English student has to do, in his turn, when he essays learning a foreign language, and encounters styles of pronunciation opposed to his phonetic idiosyncrasies, as he will do if he studies French, or is heedful of the accents in a Greek play.

The Hindu Magazine : A Monthly Review, edited by AMRITA LAL ROY. Calcutta : Excelsior Press. 1891.

THE *Hindoo Magazine* has been introduced to public notice as a new "Monthly Review." No. I, for September 1891, was received at our office on the 26th October. Each future number will be issued, the publisher notifies, "between the 15th and the last day of the month for which it will be named." Wide margins are fashionable ; and time, every school-boy knows, was made for slaves: feelingly we congratulate the new periodical on its emancipation from the tyranny of printers' devils clamorous for "copy," and its conductors on their triumphant assertion of a right to freedom from the fetters of punctuality. We have sometimes wondered why the National Congress did not put in the forefront of its line of battle a claim to respect for unpunctuality, as a distinctive national virtue. Few, even of the men born to a heritage of Anglo-Saxon prejudices, would care to deny the cogent power over resultant action inherent in such a racial characteristic.

The Hindoo Magazine feels no vocation "to preach the pre-eminence of the Hindoo religion above all others." Its only object is, we are advised on the title page, "to supply to those

of our English-educated countrymen, who are Hindoos by birth and instinct, the lost basis of their religious faith." There is candid recognition of the fact that a difficult and somewhat audacious task has been undertaken; as will be apparent from the following editorial declaration :—

In the first place, we propose to give to the reader whose main source of information is English, a rough knowledge of the Hindoo religion and philosophy as can be gathered from the Shastras. Without this knowledge Hindoo views of life can neither be understood nor explained. In the next place, as a means of conveying this knowledge we have to publish as much as possible the purport of the contents of the Shastras, from the Vedas downwards. And the last but not the least part of our duty in connection with this portion of our work will be to correct what we believe to be false views that have been spread in regard to the Hindoo religion and Shastras by men who have studied them imperfectly or with preconceived notions in their head. This will be a most delicate and risky duty to perform, but we wish to eschew all controversial spirit in entering upon it, though we shall welcome with pleasure a fair discussion of every topic from persons who may hold different views from our own. We know that the letter of the Shastras is capable of different interpretations from different points of view, though on all fundamental particulars those who have taken care to understand the spirit, agree in holding the same views and adopting the same principles of action—with difference only, if there be any, in respect of details. Hence it has been well observed :—

वेदा विभिन्नाः स्मृतयो विभिन्ना नासौ मुनिर्यस्य मतं न भिन्नं ।
धर्मस्य तत्त्वं निहित्तुं गुहायां महाजनो येन गतः स पन्थाः ॥

—*Mahabharata Banaparva.*

"The Vedas are different, the Smritis or law-codes are also several in number; and there is not a sage who has not held some new view of his own. The truth about religion lies deeply buried; that is the right path alone which great men have trodden."

We wish Baboo Amrita Lal Roy a safe journey along the thorny, although hackneyed, path which he has chosen.

The Monist. A Quarterly Magazine : Vol. I No. 4, July 1891, Vol. 2, No. 1, October 1891. Chicago: The Open Court Publishing Co.

THIS is an ably conducted Magazine of Monistic Philosophy, edited by Dr. Paul Carus, the receipt of which we can at present only acknowledge, but which we hope to notice in detail in a future number. The numbers before us contain, among other contributions of high interest, articles by Mr. James Sully, Mr. Moncure W. Conway, Professor Max Müller, Professor John Dewley, Mr. George John Romany and the Editor.

ACKNOWLEDGMENTS.

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